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MEDICAL PROGRESS IN THE UNITED STATES UNDER FREEDOM

President's Address

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Tonight is Dr. Lee's valedictory. It is his valedictory only in the sense that a long and fruitful period of official connection with the American Medical Association has been completed. No doubt his thoughts and efforts will continue to be with this organization which he has served so long and so well.

It is a fortunate circumstance for me that he is my immediate predecessor. He casts a long, broad and beneficent shadow over medicine. We who have had opportunity to observe his activities and methods at close range know how often his shadow has cooled the heat of friction and quieted the fears of the over anxious. I shall take full advantage of that shadow.

Fortunately too he leaves large footprints which are easy to follow. If I can exercise the good sense to follow them, I know that I shall not be found walking down blind alleys or treading on the treacherous sands of expediency.

In a few short months from now this Association will have been in existence for a hundred years. It is true, beyond any shadow of doubt, that the century just ending witnessed more achievements in all the arts and sciences and more progress toward a state of human well-being in the world than was witnessed by all previous centuries.

It is generally conceded that a major share of these achievements and this progress took place in the United States. Beyond question it is true that more progress was made in the science and art of medicine in this period and in the adaptation of this science and art to human needs in the United States than in any other nation in the world.

Remarkable as these achievements have been, they become all the more remarkable when it is remembered that, as a nation, we are only 170 years old—the youngest by centuries of the more important nations of the world—and that this nation was carved out of a wilderness.

These observations are not made in a boastful spirit, for the purpose of pointing with pride to the tremendous contributions made by the profession of medicine to human welfare and well-being, but rather for the purpose of considering briefly the question "How and why did the people of this nation accomplish so much in so short a time? Such a study should be of value in determining the fundamental reasons for these remarkable achievements. It should be of aid also in determining the course future events should take as far as intelligent planning can influence that course.

We are living in a troubled world. There is much controversy as to the course our profession and the nation should take with respect to many problems. It is obvious that too little attention is being paid to facts and experience and too much attention to theories and speculation.

We turn first to material resources for the answer to our question, to soil, minerals and forests, but these fail to furnish the answer. Other, older nations have similar resources in equal or greater abundance than we.

Climatic conditions may deserve consideration, but we are at once reminded that other nations also have similar climatic attributes. Climate therefore does not furnish the answer to our question.

ACCOMPLISHMENTS OF THE AMERICAN PEOPLE

It is suggested, with emphasis, that the people who settled and developed this country and established this nation might have been superior in physical and mental endowments and that this is the factor which accounts for this remarkable progress. This, of course, cannot be true because the people of this nation have many different racial and national origins. This nation has been the melting pot of races and nationalities.

Nowhere in the realm of the material and physical do we find a factor to which we can point and say "This is the factor which accounts for the remarkable progress that has been made by the people of this country and by the medical profession."

We must turn then from the physical and material to the spiritual—to the ideas and ideals of the people. Here we find a substantial difference between the people of this country and the people of other nations. The leaders who established this nation had ideas of government and freedom which were different from those in effect in other nations. The ideas found expression in the words "We hold these truths to be self evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these rights are life, liberty and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed."

That expression in the Declaration of Independence contained a new concept of the functions of government, a new concept of the origin of rights, and a new concept of the relationship a citizen bears to his government.

President's address before the American Medical Association at the Ninety-Fifth Annual Session, San Francisco, July 2, 1946.

As was pointed out by Monsignor Fulton Shean some years ago, that statement in the Declaration of Independence defines Americanism. It is the only definition of Americanism that exists. All others are fictitious or fraudulent.

To make these new ideas a vital part of American life, a bloody war was fought. To make them secure, the Constitution of the United States was written and adopted. It is well to remember too that the adoption of these instruments was the result of a welfare movement. The people who brought about their adoption were engaged in a welfare movement and so stated. It was perhaps the greatest welfare movement that was ever inaugurated on this continent, because greater and more permanent benefits to the people have issued from it. The originals of these two instruments are guarded and preserved with great diligence. It seems at times that their physical being is preserved with greater fidelity and diligence than their spirit and philosophy.

By the adoption of these ideas of freedom and of rights, men were set free to pursue their own idea of happiness, to plan and to live according to their own concepts of well-being, to pursue their own idea of religion and exercise their own initiative unhindered by authority.

I submit, therefore, that these ideas and their adoption constitute the only point of major difference between the people of this nation and the people of other nations —that it is the factor responsible for the remarkable achievements of the people of this nation in attaining a higher state of well-being than the people of any other nation. It is the answer to our question as to why and how the people of this nation have achieved so high a state of well-being in so short a time.

ACHIEVEMENTS OF MEDICINE UNDER FREEDOM

The question naturally arises "How could the adoption of such ideas of government have contributed to the phenomenal progress of medicine in this country?" The answer to that question is not too difficult. It is true, of course, that there were almost no opportunities for medical education, training and research in this country when these ideas were adopted one hundred and seventy years ago. Such opportunities were extremely limited a hundred years ago, while medical education and research were well organized and advanced in some European countries at that time. It has been pointed out, however, that in European countries there was long delay or lag in the application of new discoveries to human needs. There were hindrances to making the benefits of research and advancement available to the people in a large way. Neither the people nor the medical profession were altogether free.

It was necessary at first for the men of this country to go to Europe to obtain medical education and medical training. Notwithstanding this difficulty they did go in fairly large numbers. They came back to this country and found abundant need for their services. They found immediate opportunity to put their knowledge and skill to use. There were no hindrances in the way. This point is well illustrated in the story of the great achievements of Dr. Ephraim McDowell. It will be remembered that Dr. McDowell went to Edinburgh, Scotland, to complete his medical education. He was taught by the then famous Dr. John Bell that it should be possible to remove an ovarian cyst and something of the technic by which it could be done, though Dr. Bell had never performed the operation on a living person. He had done it only in the anatomic laboratory. Research and reason led Dr. Bell to a sound conclusion, but he never did adopt the idea in practice. There were hindrances in the way. Dr. McDowell brought back to a frontier village in Kentucky the knowledge and skill he had acquired in Europe, and in the atmosphere of freedom which existed here in which he as a doctor and a woman as a patient were at liberty to make decisions concerning their own welfare and act on them, unhindered by any outside influence, he performed successfully the operation of oophorectomy for the first time in human history. Thus it happened that an idea which was born in an old country was put to use in the new. Who can estimate the centuries which might have elapsed before this operation would have been performed had freedom not been established over here? The only conclusion which can be drawn from this bit of history is that it was freedom which made this achievement possible—freedom in which knowledge, skill and courage could pursue humanitarian ends unhindered by any adverse influence.

The medical profession of this country was augmented to some extent by the immigration of well trained European doctors.[1] It should be stated also that both the native and immigrant doctors brought to this country knowledge, skill and courage. They left European ideologies behind.

The progress of medicine and surgery which took place in this country was so rapid that it has no equal anywhere on earth. Dr. J. Marion Sims developed the operation for which he became world famous. The anesthetic effect of ether was discovered and adapted to surgical uses. The nature of appendicitis was discovered and its cure, by surgical means, was perfected. Thoracic surgery, brain surgery, goiter surgery and gallbladder surgery were all, to a large extent, pioneered in this country, and these are but a few of the results of pioneering work that was done by the medical profession of this country. It is not boasting to say that for the past twenty-five years our system of medical education and practice has been superior to that of any European country.

Research work of great value was carried on in Europe all the while with important results. The relationship of bacteria to diseases and to wound infection was discovered and proved in Europe. This knowledge was imported and put to immediate use over here.

I would not wish to create the impression that this pioneering and this progress were accomplished by reckless adventure. On the contrary they were always attended with prudence and caution. The profession has ever been mindful of the philosophy that whatever is potent for good is also potent for evil. The value and safety of the new must always be proved. The profession has been mindful also of the fact that while freedom gives opportunities it also imposes obligations and responsibilities. At the very beginning of this Association the leaders in its formation gave primary consideration to the interests and needs of the people. The interests of doctors were secondary. "The objects of the Association," it was stated, "are to promote the science and art of medicine and the betterment of the public health." That is still the purpose of this organization.

ETHICAL PRINCIPLES

The leaders also recognized the need for a high order of ethical principles. The first paragraph in the Principles of Medical Ethics is as follows: "A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration." These are statements of broad principle and objectives. The following two principles are specific and deal with particular situations:

1. "It is unprofessional to receive remuneration from patents or copyrights on surgical instruments, appliances, medicines, foods, methods or procedures. It is equally unprofessional by ownership or control of patents or copyrights either to retard or to inhibit research or to restrict the benefit to patients or to the public to be derived therefrom." [1]

2. "The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous service of a physician." [2]

These statements in our fundamental law give the background of our philosophy of service. Such motives gave this Association its purpose. Such principles have given it guidance through almost a century of existence. Never in a hundred years has this organization taken an action which would do violence to the freedom which was established here a hundred and seventy years ago. Never has an action been taken which would arrogate to the profession or to any member of it the slightest power over patients. Nor has the profession ever opposed a government benefit designed for the proved need of any community or group of citizens except when the proposed benefit was coupled with conditions and terms which constituted a threat to the essential freedom of those concerned.

THE AMERICAN SYSTEM

Under such guiding principles a system of medical care has been evolved in this country which in many respects is peculiarly American. As medical science progressed and new technics came into use, additional facilities were required for the delivery of high quality medical care. Hospitals have been created and are operated by the cooperation of the public with the medical profession. The cooperation of the public has been secured by the simple process of education as to the needs and advantages of such institutions. Under this system the people of all income levels have received high quality medical care at a cost they could afford to pay.

There are areas in this country in which the people are unable to cooperate in the financing of hospitals. Outside aid is required, and the medical profession has encouraged government aid in cases of proved need and when the aid is to be administered under local auspices.

The medical profession has sponsored the creation and operation of voluntary prepayment medical service plans, and it is the contention and belief of the profession that the same type of cooperation on the part of the people and the medical profession that has been so successful in the past would be equally successful in the future to enable people of moderate means to budget the cost of medical care without hardship, without sacrificing their freedom and without the interposition of government agents between the patient and his doctor.

1. Chapter III, article I, section 5.
2. Chapter III, article VI, section 1.

Various units of government have constructed and operated hospitals to meet specific needs. It would be well for us and for the people to keep in mind the fact that the institutions which have been most expensive and the least efficient in the delivery of medical care, the ones that are most callous and indifferent to the needs of the people, the institutions in which major scandals have been exposed are almost without exception institutions in which political influences are dominant—as an example the conditions found to exist in veterans' hospitals about two years ago.

To say that we have in this country the best system of medical care and that the people as a whole receive the highest quality medical care of any people on earth is to reiterate truisms. Proof that these statements are true is found in death rates and authoritative estimates of life expectancy. The death rate in the United States has been reduced to 10.4 and life expectancy has been increased from 34 years in 1869 to 65 years in 1945. In no other nation with a similar population do such favorable conditions exist. These are examples of constructive progress under freedom.

CAMPAIGN TO UNDERMINE FAITH IN AMERICAN MEDICINE

Notwithstanding the evidence of outstanding accomplishment, a campaign has been going on for some years now aimed at four objectives: 1. the destruction of the faith of the people in the medical profession. 2. Destruction of the faith of the people in our American system of medical care. 3. Destruction of the freedom of doctors and patients. 4. The establishment of a totalitarian system of medical care.

The proponents of this campaign of destruction often contend that their program is constructive and progressive. The real purposes of this campaign have often been hidden under a cloak of welfare. Every deceptive trick of the propagandists has been employed in the prosecution of this campaign. The virtues and accomplishments of the medical profession and our system of medical care have been minimized or ignored and such deficiencies as exist have been greatly magnified. Unwarranted claims of the benefits of foreign systems have been made. Undependable data have been compiled and published as facts, and factual data have been misused and misinterpreted.

When the Selective Service Administration gave out some figures as to the percentage of men rejected for military service these figures were seized on and interpreted to the public to mean that our system of medical care is grossly defective and inefficient. Such interpretation was placed on the gross figures without any form of analysis. This false interpretation shocked and alarmed the people of this country at a time when we were entering on a mighty struggle. Prudence would suggest a different course even if their contentions were true.

No reference was made to the fact that the rate of rejection in England was higher than ours in spite of a less rigid examination.

It was some time before a partial analysis of the data was completed. In the meantime a humorist published a story about a 4-F licking a Marine in a brawl. This relieved the shock to some extent. Then 4-Fs began to take their places on football fields and baseball diamonds, in factories and assembly lines, on farms and in mines,

with the result that our nation proceeded to produce more food, more guns, more ships and tanks and more airplanes than any other nation, large or small. Our soldiers and sailors soon won more battles on land, sea and air in more different parts of the world than those of any other nation, and more babies were born and more of them lived than ever before in this country. Our nation came to be regarded as the most productive and most powerful nation in the world. Obviously none of these accomplishments would have been possible if our people had been so defective and our system of medical care been so inefficient as painted. Finally, it was pointed out that the examination to which registrants were subjected was not intended as a test of the vitality or civilian usefulness of these men. It was intended only to be a test of their fitness for military service according to rigid standards, yet these figures are still submitted to the Congress and the people of the United States in support of legislation which would destroy our system of medical care and go a long way toward creating a totalitarian system of government.

A partial analysis of the data on rejectees shows that only about one sixth of the defects are correctable at all, and no study has yet been made to determine the exact extent to which corrective measures would be accepted by rejectees. The Selective Service Administration did plan and put into operation a program aimed at the correction of certain defects, but the results were such that the program was abandoned. We doctors are thoroughly acquainted with the fact that many people do not and will not accept medical and surgical care when it is recommended, even when it is free. We recognize also that under our system of medical care the patient has a right to determine whether he accepts treatment or not. We doctors do not possess, nor have we ever sought the power to compel people to accept our recommendations and we certainly do not recommend that any government agency be given such power.

This campaign culminated in the introduction in both houses of Congress of a series of Wagner-Murray-Dingell bills. The effect of the bill now pending, if enacted, would be to make medical and hospital care matters of federal patronage to a large extent. All the beneficiaries under the bill would become beholden to a federal administrator for their medical care. Doctors, hospitals and nurses would become beholden to a federal agency for a contract to serve the beneficiaries or else not serve them. Numberless thousands of federal employees would be appointed to administer these contracts. They, in turn, would develop a vested interest in their federal jobs. The beneficiaries would receive no insurance contract but would accept whatever benefits were arranged for them by the administrator. Yet the proponents of this measure contend that it is insurance.

This bill constitutes the boldest bid for more power over more people and for greater patronage than any other measure that has ever been introduced into the Congress. If regarded as a patronage measure instead of a welfare measure, it can be more easily understood and its far reaching implications can be more easily comprehended. In the hearings that have been conducted on this bill, it is apparent that its proponents adroitly emphasize what the bill would do for the people and they go to great pains to minimize what the bill would do to the people.

The issue before the American people is becoming more clearly defined and, in brief, it is this: "Shall patients and doctors retain their freedom of judgment in this matter of medical care or shall this freedom be surrendered to a federal bureaucracy?" It is not an issue in which one group of people favors welfare and another group opposes it. All want a high state of welfare. The dispute is over the method of attaining that end.

The medical profession has noted with deep concern the extent to which the energies and talents of some of the personnel of the United States Public Health Service is being devoted to political activities. We cannot escape the thought that if all their energies and activities were devoted to the prevention of disease and the correction of environmental conditions which produce disease it is altogether possible that typhus and undulant fever would be less prevalent than they are; that our streams would be less polluted and our laborers in mines and factories would be working in a healthier and less hazardous atmosphere.

LOYALTY TO AMERICAN IDEALS

It can be said also that the policies which govern this department in its distribution of funds appropriated by the Congress for the purpose of equalizing the public health services throughout the nation have defeated this purpose. These policies have made the money more easily available to richer counties and not available at all to the poorer counties. It is obvious that considerations other than need govern this matter, yet the lack of such service in the poor counties is submitted as evidence of the unequal distribution of medical service throughout the nation and as proof that the Surgeon General should be given more money and vast powers by the Congress.

Nor can we forget the historical fact that, with the hearty cooperation of the medical profession, a relatively small number of health officers who were devoted to the performance of their particular duties, and with small appropriations, accomplished the eradication of many of the major scourges of humanity many years ago.

The medical profession has expressed its loyalty to American ideals in voice, in action and in sacrifice. The record of this Association over a period of nearly a hundred years is an open book. It is a record of progress, of achievement, of loyalty to ideals unequaled by the profession in any other nation. We have good and sufficient reasons for an abiding conviction that freedom more than any other single factor made these beneficent achievements possible and that the destruction or even the impairment of freedom would retard, if not arrest, progress and that for the people to give up the benefits of freedom for a promise, a hollow promise, of benefits alleged to be free would be the worst bargain the people of this nation ever made.

Not long ago our freedom was challenged by foes from without. That challenge has been met and repelled. A challenge, no less definite, has been made by the foes of freedom within. The question is "Shall we surrender, shall we abandon the principles that have made the profession and the nation great?" I think I can hear a hundred and thirty thousand doctors voting "no" to each proposition and about six hundred voting "aye." The situation that exists at the present time, it seems to me, calls for nothing more than a rededication of all our strength and energy to the principles to which this Association has been dedicated for so long and a resolute determination that they shall be preserved for the benefit of mankind.

CANCER OF ENDOMETRIUM AND PROLONGED ESTROGEN THERAPY

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Estrogenic substance is today prescribed for a host of gynecologic complaints. It is given for the control of menorrhagia, amenorrhea and dysmenorrhea, for premenstrual headaches and depression, for asthma, for arthritis and for osteoporosis. Symptoms associated with the climacterium are in some clinics treated almost continuously and over periods of years with estrogenic substance. The prescription of estrogen is unfortunately not always preceded by a pelvic examination. Thus it has been given to patients with unrecognized uterine cancer [1] and prescribed for amenorrhea in the congenital absence of a uterus and vagina.[2] Criticism of the indiscriminate use of estrogenic substance has appeared in the literature, and fears have been expressed as to its possible carcinogenic effect on the breast and uterus.[3]

REPORT OF CASE

The subject of this report was treated with large amounts of estrogenic substance almost continuously over an eight year period. At the end of this period cancer of the endometrium was diagnosed by vaginal smear, and the diagnosis was confirmed by biopsy. Evidence suggesting the possibility of a causal relationship between the long continued administration of estrogen and the subsequent development of cancer will be presented.

M. R., a woman then 25, was in 1919 admitted to the Massachusetts General Hospital with asthma of one year's duration. Four years before, in another hospital, the uterus had been suspended for retroversion. At that time the ovaries were described as "infantile." Her periods, beginning at the age of 13, had been regular with a twenty-eight day interval. From the onset the asthma had been of great severity, requiring the administration of epinephrine hydrochloride every few hours and necessitating frequent hospital admissions. As a result the patient has been under almost continuous observation in this hospital over the past eighteen years.

Pelvic examinations in 1919, 1924, 1942 and 1943 were negative. In 1928 she experienced an eight month period of amenorrhea; in 1936 she was amenorrheic for four months. In 1937 a relationship between amenorrhea and the increased severity of her asthma was suspected. The patient, now 43 years of age, complained also of hot flashes and sweats. Treatment with estrogenic substance was begun May 10, 1937 and was given (except for part of the year 1940) almost continuously until Sept. 22, 1945. During this therapy three unusual features were noted by Dr. Fuller Albright: the persistence of hot flashes, the persistence of high urine titers of the follicle stimulating hormone in spite of adequate doses of estrogen and the absence of bleeding when estrogen was temporarily withdrawn. An endometrial biopsy in January 1942 showed hyperplasia of the endometrium. The administration of estrogen was continued nevertheless. During February, March and July of 1944 vaginal staining occurred. On Sept. 22, 1945 the patient reported six weeks of slight vaginal bleeding. Pelvic examination was negative but a vaginal smear was positive for endometrial cancer, and the diagnosis of endometrial adenocarcinoma was established by microscopic examination of material obtained by curettage. Estrogens were withdrawn; two weeks later the vaginal smear was atrophic but still positive for cancer, and a second biopsy again showed adenocarcinoma.[4] At this time, because of the previous absence of response of the follicle stimulating hormone to the prolonged administration of estrogen, an experiment was set up to determine if this same unresponsiveness to estrogens was still present. Estrogens were omitted for a four week period, at the end of which the vaginal smear showed complete absence of intrinsic estrogenic stimulation, and the urine titer of the follicle stimulating hormone was high (table 2). The administration of estradiol dipropionate 5 mg. every other day for ten days was followed by moderate pituitary inhibition (indicated by a lowering of follicle stimulating hormone titers of the urine). The determination of 17-ketosteroids was made before and after the administration of estrogens. Both determinations were abnormally low. Except for a state of chronic illness and the continuous administration of epinephrine hydrochloride (? chronic alarm reaction) there is no explanation for these low figures. The pathologic examination of the excised uterus revealed adenocarcinoma grade 2.

Table 1 shows the approximate amounts of estrogenic substances which the patient received.

TABLE 1.—*Approximate Amounts of Estrogenic Substance Received by Patient*

1937	Estradiol benzoate	28 mg.
1938	Estradiol benzoate	71 mg.
1939	Estradiol benzoate	57 mg.
1940	Estradiol benzoate	7 mg.
1941	Estradiol benzoate	134 mg.
1942	Estradiol benzoate	47 mg.
	Diethylstilbestrol	18 mg.
1943	Estradiol benzoate or dipropionate	48 mg.
	Estrone sulfate	120 mg.
1944	Estrone sulfate	375 mg.
1945	Estrone sulfate	600 mg.
Eight year total		
	Estradiol as benzoate or dipropionate	392 mg. (2,352,000 rat units)
	Estrone sulfate	1,085 mg. (8,862,000 rat units)
	Diethylstilbestrol	18 mg. (450,000 rat units)

COMMENT

There is reliable evidence that in animals estrogenic substance predisposes certain tissues (especially of the breast and uterus) to the development of cancer. Circumstantial evidence indicates, moreover, that stimulation of the human breast and uterus by estrogens may be one factor in the chain of processes resulting in cancer of these organs.

Estrogens and Cancer of the Breast.—In strains of mice with a high incidence of cancer the rate of mammary cancer can be reduced to almost zero if the ovaries are extirpated at the time of early sexual maturity. Moreover, the younger the mouse when castrated (except in the case of newborn mice) the lower the incidence and the later the appearance of mammary cancer.[5]

From the Vincent Memorial Hospital (the gynecologic service of the Massachusetts General Hospital) and the Departments of Medicine and Gynecology of Harvard Medical School.

1. Scheffey, L. C.: Farell, D. M., and Hahn, G. A.: Role of Injudicious Endocrine Therapy in Delayed Diagnosis of Uterine Cancer, J. A. M. A. **127**: 76-80 (Jan. 13) 1945. Stoddard.[2]

2. Stoddard, F. G.: Abuse of Endocrine Therapy in Gynecology, J. A. M. A. **129**: 508 (Oct. 13) 1945.

3. Allen, E.: Ovarian Hormone and Female Genital Cancer, J. A. M. A. **114**: 2107-2114 (May 25) 1940.

4. Novak (Postmenopausal Bleeding as Hazard of Diethylstilbestrol Therapy, J. A. M. A. **125**: 98-99 [May 13] 1944) reported a case in which a diagnosis of cancer of the endometrium made immediately following estrogenic treatment was not sustained after treatment was withdrawn. Ingersoll (cited by Meigs [10]) reported a similar case and Geist (S. H.; Walter, R. I., and Salmon, U. J.: Are Estrogens Carcinogenic in the Human Female? Am. J. Obst. & Gynec. **42**: 242-248, 1941) described a case following prolonged estrogen therapy in which a diagnosis of adenocarcinoma made on specimens obtained by curettage was not confirmed on examination of the excised uterus. Henry (J. S.: The Avoidance of Untoward Effects of Estrogenic Therapy, Canad. M. A. J. **53**: 31 [July] 1945) reports that 2 women were each treated for three years with diethylstilbestrol. Tissue obtained by curettement in 1 case presented "intense hyperplasia showing precancerous or actually early malignant changes," and in the second case a process "to all appearances a malignant one" was described. But in neither case was the diagnosis of malignant disease confirmed by later curettement or by hysterectomy.

5. Lathrop, A. E. C., and Loeb, L.: Further Investigations on the Origin of Tumors in Mice: III. On Part Played by Internal Secretion in Spontaneous Development of Tumors, J. Cancer Research **1**: 1-20, 1916. Loeb, L.: Further Investigations on Origin of Tumors in Mice: VI. Internal Secretion as Factor in Origin of Tumors, J. M. Research **40**: 477-496, 1919; The Significance of Hormones in the Origin of Cancer, J. Nat. Cancer Inst. **1**: 169-195, 1940.

Lacassagne [6] first succeeded in causing the development of mammary cancer in male mice belonging to high tumor strains by injecting large quantities of estrogen continued over long periods. He showed, moreover, that diethylstilbestrol, physiologically similar but chemically unrelated to the natural estrogens, would also cause cancer in male mice, thus demonstrating that estrogens are carcinogenic in mice not because of their chemical configuration but through their property of physiologic stimulation. Lacassagne's work implies that cancer of the mammary glands does not occur spontaneously in male mice of a high tumor strain because the hormone necessary for the stimulation of the mammary gland is lacking.

Burns and Shenken [7] found that the incidence of mammary cancer in male mice varied directly with the amount of estrogen injected and the duration of treatment. Injections continued for one month did not produce cancers; if continued four to five months a maximum number of cancers appeared.

If mice of a high cancer strain are oophorectomized as early as twenty-four hours after birth, breast development and estrus nevertheless occur later, and in 27 per cent of the animals mammary cancer develops.[8] In mice so treated nodular hyperplasia of the adrenal cortex develops and this organ is believed to have taken over estrogen production.

All authors agree that for the production of mammary cancer in mice, besides estrogenic stimulation of the breast two other factors are essential: first a "milk factor" [9] and second a hereditary factor which may well be a greater inherited sensitivity of the (genital) tissues to stimulation with estrogen.[10]

Since estrogens are today so widely prescribed, it is inevitable that cancer of the breast should occur as a coincidence in women receiving this hormone. In no one case, therefore, can it be proved that treatment with estrogenic substance is responsible for the development of a given neoplasm. There have been several reports of cancer of the breast appearing in women under estrogen therapy. Allaben [11] described a case in which a total of 42 mg. of estrogen was administered in continuous treatment for over one year. During this year cancer of the breast with metastases developed. Auchincloss and Haagensen's [12] patient received 79 mg. (or 474,000 rat units) of estradiol benzoate over a two year period. During the last month a carcinoma of the breast with metastases to the lymph nodes was discovered. The breasts had been examined twice before beginning treatment with estrogen and found to be without tumors. Anspach,[13] Parsons and McCall [14] and Loubejac [15] each reported 1 case. Kellogg [16] followed 1 case in which cancer of the breast developed after the administration of estrogens for asthma. These reports are suggestive and should temper with caution the present enthusiasm for estrogen therapy. Gardner [17] suggested that estrogens increase the physiologic age of

TABLE 2.—*Correlation of Estrogen Therapy with Laboratory and Clinical Observations*

Date	Treatment	F. S. H.	17 K. S.	Vag. Smear	Biopsy	Comment
7/22/41	Epinephrine daily throughout, estradiol benzoate 1.66 mg. twice weekly	Between 50-100 units per 100 cc.	.....	.....	.....	Follicle stimulating hormone high in spite of estrogens
9/27/41	Estradiol benzoate 1.66 mg. daily for 11 days	Less than 10 units per 100 cc.	.....	.....	.....	Follicle stimulating hormone responded to massive doses of estrogens
10/21/41	Smaller doses of estrogen	Between 10-50 units per 100 cc.	.....	.....	.....	Follicle stimulating hormone at menopausal level in spite of estrogen treatment
1/26/42	.....	.....	.....	.....	Hyperplastic endometrium	
10/22/45	Estrogens omitted	.....	.....	Positive for cancer; estrogens ++	.....	Vaginal staining first noted 2/4/45; slight bleeding previous 10 weeks
11/ 1/45	.....	.....	.....	Positive for cancer	Adenocarcinoma of endometrium	
11/ 9/45	.....	Between 384-576 mouse units per 24 hr.	3.8 mg.	.....	.....	Follicle stimulating hormone high (menopausal); determined by method of the Heliers
11/28/45	.....	Between 192-384 mouse units per 24 hr.	.....	Positive for cancer; estrogens 0	Adenocarcinoma, grade II	Atrophic vaginal smear indicated all previous estrogen effect due to extrinsic estrogens
11/30/45	Estradiol dipropionate 5 mg. intramuscularly every other day for 5 doses	.....	.....	.....	.....	Given to test sensitivity of pituitary to estrogen inhibition
12/ 7/45	.....	Between 96-192 mouse units per 24 hr.	.....	Positive for cancer; estrogens ++	.....	Moderate pituitary response to estrogen therapy
12/ 8/45	Estrogen discontinued	.....	1.6 mg.	.....	.....	Except for possible continuous "alarm" reaction as result of daily epinephrine injection, no explanation for low 17 ketosteroids
12/18/45	.....	.....	.....	.....	.....	Pathologic report on excised uterus: Adenocarcinoma endometrium grade II, endometriosis of ovary

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17. Gardner, W. U.: Tumors in Experimental Animals Receiving Steroid Hormones, Surgery **16:** 8-32, 1944.

tissues, thus rendering them more susceptible to other carcinogenic factors. Nathanson [18] in a review states that "hormones may possibly be the direct cause of malignant change in the (human) breast. . . . As yet there is no concrete evidence to prove this."

Estrogens and Cancer of the Endometrium.—Can cancer of the endometrium arise as the result of estrogenic stimulation? Evidence bearing on this question has been previously reviewed by one of us.[19] Experimental work is less conclusive here than in respect to the breast. Although cancer of the cervix has been produced by estrogens,[20] no report of endometrial carcinoma in animals subjected to estrogen treatment has appeared. Greene [21] has seen metastasizing endometrial tumors in rabbits following a disease described as the counterpart, in rabbits, of toxemia of pregnancy in women. Such rabbits, he believes, because of damage to the liver, fail to inactivate adequately the estrogen produced by their normal ovaries. The endometrium is thus exposed to overstimulation with estrogen.

Estrogens will produce typical hyperplasia of the endometrium in animals,[22] particularly in the absence of corpora lutea. The development of hyperplasia depends on the continuity of estrogenic stimulation rather than on the amount of estrogen given. Lipschütz,[23] discussing the similarity of estrogens and hydrocarbons in production of cancer, states that the atypical metaplastic proliferation of epithelial and connective tissue elicited by the administration of estrogens in the guinea pig affords characteristic signs of neoplastic growth.

In man, carcinoma developing on the basis of hyperplasia of the endometrium has been frequently observed. Novak and Yui,[24] studying endometrial carcinoma in women, state that "not only do adenocarcinoma and hyperplasia frequently coexist, but in many instances one can see in one and the same case, and perhaps in one and the same section, all grades of transition from frankly benign, to borderline, to obviously malignant histologic pictures." They found "hyperplasia" in 25 of 104 cases of endometrial cancer. In 13 of 61 patients over 55 years of age (21 per cent) hyperplasia coexisted with carcinoma; in only 4.8 per cent of noncancerous women of the same age group was hyperplasia of the endometrium found to be present. Novak and Yui conclude that "hyperplasia" (which they define as the endometrium under continuous estrogenic stimulation) persisting after the menopause predisposes to the development of cancer.

Herrell,[25] in a study of 241 specimens of endometrium, states that he has never seen an endometrial carcinoma in a previously oophorectomized person. Randall [26] substantiates this statement in a study of 162 patients with endometrial cancer. Smith,[27] however, as noted by Ingraham, reported 3 instances of endometrial cancer occurring fifteen years after bilateral oophorectomy. Herrell, in agreement with Novak and Yui, states that endometrial carcinoma occurs practically always in the presence of a persistently proliferative type of endometrium resulting from the unopposed action of estrogen. Ingraham, Black and Rutledge [28] report 2 cases of endometrial cancer in women with granulosa cell tumors and 1 in a woman with a theca cell tumor of the ovary. Hertig [29] states that 18 to 20 per cent of the patients with granulosa cell tumors and with thecomas who were studied by him have associated carcinomas of the endometrium; and Smith [27] in a study of 180 specimens of ovaries from cases of endometrial cancer found in 87 per cent slight to decided evidence of theca cell activity. A proliferative endometrium was present in 48 of 62 patients with such theca cell activity. However, Jones and Brewer,[30] studying 68 patients with cancer of the endometrium, found only 2 with cystic hyperplasia. These authors doubt the importance of unopposed stimulation by estrogen in the causation of endometrial cancer. Geist and Salmon [31] found no evidence of abnormal proliferation of the endometrium of women after the prolonged administration of estrogen in large doses. However, Crossen and Hobbs [32] found the late occurrence of menopause (50 years or over) about four times as high in women with endometrial adenocarcinoma as in a healthy group. In 3 of their cases, hyperplasia of the endometrium was demonstrated by biopsy one to two years before the development of cancer. Randall [26] states that only 8 per cent of the women in whom cancer does not develop continue to menstruate past the age of 50, whereas 35 per cent of those in whom cancer does develop menstruate to this age or later. He believes that, when postmenopausal bleeding occurs, the woman who has experienced menorrhagia during the climacterium presents a three and one-half times greater chance of having adenocarcinoma of the uterus than does one who has had no excessive bleeding during the "change." He suggests that endometrial hyperplasia may persist asymptomatically in a uterus destined later to develop adenocarcinoma.

SUMMARY

The evidence cited does not prove but does strongly suggest that the unopposed action of estrogens on the breast and endometrium of certain women may result in the development of cancer. Since we have shown by the finding of atrophic vaginal epithelium, after estrogen was withdrawn, that our patient was herself producing little or no estrogen, the supposition is strong that endometrial cancer might not have developed without the administration of extrinsic estrogens. The physician prescribing this hormone to menopausal women should be aware of the possible danger inherent in prolonged treatment without adequate periods of rest. In 1 other case studied in our laboratory endometrial hyperplasia preceded by fourteen months the demonstration of endometrial cancer.

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29. Hertig, A., cited by Meigs.[19]
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The development of persistent endometrial hyperplasia may be a sufficient reason for the termination of treatment with estrogens.

COMMENT

We believe that this is the first report of the occurrence of endometrial cancer in a woman undergoing prolonged treatment with estrogen. Evidence as to the possible carcinogenic effect on the breast and uterus from prolonged estrogen therapy has been reviewed. The need for caution in the use of this hormone is reemphasized.

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WOOD'S LIGHT FLUORESCENCE PHENOMENON IN QUINACRINE MEDICATION

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As the result of the extensive use of quinacrine hydrochloride (atabrine) as an antimalarial drug during the war, its pharmacologic properties have become well known and have been discussed thoroughly in the literature. Temporary yellow discoloration of the skin and certain types of associated skin reaction, including bluish pigmentation of the nails and palate,[1] due to the prolonged use of atabrine as an antimalarial prophylactic, have also been reported and observed by army physicians.

It is well known that atabrine when given orally accumulates in the tissues and is slowly excreted from the body. When its use is discontinued, excretion continues for long periods. Our present discussion shows that it is still present in the nails a year or more after regular oral ingestion of the drug has been stopped. The practical application in determining whether or not troops are taking or have taken atabrine prophylaxis or treatment will be made evident in this paper.

The present study was accidentally inspired by one of the authors (J. G., who had recently spent almost two years as an army physician in the tropics) when he noticed a bright greenish yellow fluorescence of his own fingernails while examining a child for tinea capitis under Wood's light [2] in his office. The other author (P. L. S.) had also noticed similar fluorescence to ultraviolet light while making a previous study of deposits of atabrine in the hard palate and fingernails.[1] An attempt to photograph this phenomenon proved futile because of the necessity of overexposure with other sources of light to obtain color photographs.

Discoloration and pigmentation in other parts of the body have been noted in the literature. We are unable to find any reference to this fluorescent faculty in the fingernails or toenails as we have observed and are reporting.[3]

In order to determine what criteria would be needed in gathering data, a small group of patients who had taken atabrine and another group who had not taken atabrine were studied in great detail. Their entire body surface and all apertures and appendages and mucous surfaces were observed under Wood's light. Fluorescence phenomena in both groups of individuals were essentially the same with the exception of the nails. The nails of subjects not on atabrine fluoresce pearl white (with the exception of diseased nails or in women whose nails have been painted with lacquer). The nails of subjects taking atabrine fluoresce a bright greenish yellow, which is readily distinguished from the fluorescence of the normal nail under Wood's light.[4] Colored subjects showed the same nail fluorescence phenomena as white subjects.

OBSERVATIONS ON 511 GENERAL HOSPITAL PATIENTS OF ALL TYPES, AND DEDUCTIONS

1. Patients still on atabrine antimalarial prophylaxis or those on atabrine therapy showed the characteristic greenish yellow fluorescence of all the nails under Wood's light all the way to the cuticle.

2. Those who had not taken atabrine for a month or more showed normal pearl white fluorescence in the proximal nail with greenish yellow fluorescence distally. The pearly white area corresponds to the nail growth in this period.

3. The proximal clearing was apparent in the fingernails before it appeared in the toenails after atabrine was discontinued.

4. Atabrine fluorescence tended to disappear entirely from the fingernails three to six months after the drug was stopped. In the hands, the nails of the thumb and forefinger tended to lose the fluorescence last. In the fingernails of 1 patient, however, the atabrine fluorescence was present in the nails of the ring fingers and toes only four months after discontinuing atabrine.

5. Atabrine fluorescence usually did not disappear from all nails until about one year after the drug was stopped. The great toenail frequently remained fluorescent several months longer than the others.

6. Studies of women's nails were in general unsatisfactory, because of staining from nail lacquer present or recently applied.

7. Subjects who had taken only small quantities of atabrine did not show the characteristic atabrine fluorescence phenomena.

8. Definite fluorescence of the nails was apparent in all subjects who were on atabrine therapy or sound prophylaxis when examined or who had discontinued using the drug within a six month period. (Among 4 patients in this study who had taken atabrine during the previous six months and showed no characteristic

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This study of Wood's light fluorescence phenomenon in the military personnel who had taken atabrine was made at Gardiner General Hospital in Chicago. Wood's light apparatus (Standard Wood's light apparatus with a CH4 General Electric bulb was used) was installed in a large dark room in the hospital and available ambulatory patients were studied. "Wood's glass" appears nearly black in ordinary light, as it cuts out practically the whole of the visible spectrum, although it is transparent to most of the ultraviolet light range. The filter is essentially a nickel oxide glass.

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2. Lewis, George M., and Hopper, Mary E.: Filtered Radiation (Wood's Light), An Introduction to Medical Mycology, Chicago Yearbook Publishers, Inc., 1943. Radley, J. A., and Grant, J.: Fluorescence Analysis in Ultraviolet Light, New York, Dvan Dostrant Company, Inc., 1939, QC 477 R182 (D).

3. Massa, M.: The Presence and Prolonged Elimination of Atabrine Demonstrated by Wood's Light, Riforma med. **49**: 980 (July) 1933; describes technic of measurement in blood, urine and red cells only.

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Meyer, J., and Sardinan, L.: Application of Wood's light to Dermatologic Diagnosis, Bull. Soc. franç. de dermat. et syph. **32**: 369, 1925.
Cleveland, D. E. H.: "Wood's Light" in Dermatologic Diagnosis, with Special Reference to Ringworm, Arch. Dermat. & Syph. **18**: 368 (Sept.) 1928.
Goodman, H.: Fluorescence, Particularly in Dermatology, Brit. J. Dermat. **40**: 150, 1928.

nail fluorescence, it was noted that the total amount taken was relatively small.)

9. Stools and urine and saliva showed no valuable distinguishing fluorescent phenomena in the two groups of subjects studied.

10. The pigments in normal urine cause it to fluoresce in colors similar to that of atabrine, so that even though atabrine is present in large quantities in the urine it may not readily be distinguished under Wood's light from urine containing none.

11. Patients receiving numerous other drugs by various routes (except topically) showed no unusual fluorescence phenomena under Wood's light. (A moderate number of patients recently receiving penicillin or sulfonamides showed no striking fluorescence phenomena.)

TABLE 1.—*Fluorescence Studies of Fingernails with Wood's Light in 511 General Hospital Patients*

No atabrine medication, no unusual fluorescence	353
Atabrine medication, no fluorescence	79
Atabrine medication, characteristic yellow fluorescence	79
Total patients studied	511
Total number of patients who had taken atabrine	158

TABLE 2.—*Patients Who Had Taken Atabrine and Showed Characteristic Yellow Fluorescence of Nails*

	Months Since Last Dosage												
	13	12	11	10	9	8	7	6	5	4	3	2	1 Mo. or Less	Total
Toenails only	1	0	4	2	2	4	6	9	9	3	1	0	0	41
Great toenail only	1	0	4	2	1	1	3	5	2	0	0	0	0	19
Toenails and fingernails	0	0	0	0	0	0	0	1	3	8	9	7	11	38
Total number of patients	1	0	4	2	3	4	6	9	12	11	10	7	11	79

TABLE 3.—*Patients Who Had Taken Atabrine and Did Not Show Characteristic Yellow Fluorescence of Nails*

	Months Since Last Dosage												
	13	12	11	10	9	8	7	6	5	4	3	2	1	Total
Number of patients	55	3	6	2	3	2	4	(1	0	2	1	0	0)	79
								See observations: 8						

12. Numerous drugs and biologic preparations from the pharmacy were studied under Wood's light, and they showed characteristic phenomena as cited in the literature.[5] Atabrine tablets fluoresce brilliant yellow. Atabrine in aqueous solution also fluoresces brilliant yellow.

13. The accompanying tables give a numerical summary of our findings.

CONCLUSIONS AND PRACTICAL APPLICATIONS

1. In prophylactic use of atabrine as an antimalarial substance its ingestion may be qualitatively determined by utilization of the Wood's light fluorescence phenomena on the fingernails and toenails.

2. There appears to be, at least from the point of view of fluorescence in the fingernails and toenails, a longer delay in complete body excretion of atabrine than previously reported. This observation bears out also the previously referred to observation of atabrine deposits under the nail as a pigment.[1]

5. Radley and Grant.[2] Massa.[3]

FLUORESCENCE OF NAILS FROM QUINACRINE HYDROCHLORIDE

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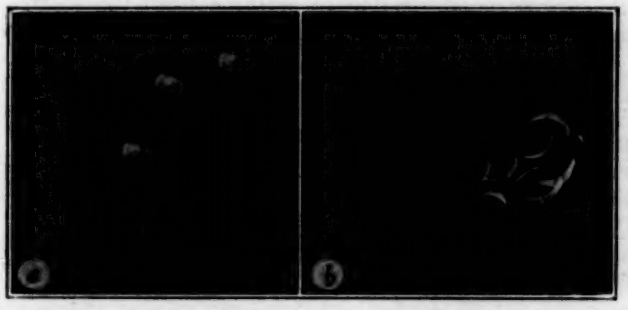
The accidental finding of intense fluorescence of the toenails and fingernails of persons receiving quinacrine hydrochloride (atabrine) was first noted in December 1945. This occurred when one of us (R. R. K.) was examining a patient with the Wood light and noticed a brilliant yellow-green fluorescence of the examiner's nails, as shown in the accompanying illustration. This examiner had just returned from the Southwest Pacific Theater, where he had been taking atabrine in daily doses for almost two years.

The fluorescence of the so-called normal nail is much less intense than that of the "atabrine" nail and its color is quite different, in the normal nail being violet-blue and in the "atabrine" nail being yellow-green to almost white.



Fluorescence of the "atabrine" nails as compared with the normal nails. (The only source of light for the original photograph was the Wood light.)

Since then an additional 9 persons have shown this fluorescence. All of them had taken atabrine from five to twenty-one months. In no person not receiving atabrine has this fluorescence been observed. Under ordinary day and night light all nails appeared normal.

The fluorescence clinically begins to fade in three months after discontinuing atabrine, and the disappearance is usually complete in six to seven months.

The blue-black pigmented areas of the nail beds and palate which have been observed in people taking atabrine for long periods do not fluoresce. Nor does skin or hair fluoresce in this manner, and the teeth of these persons exhibit no greater fluorescence than those of normal persons.

The exciting wavelength of the Wood type of light used in this study varied between 3,500 and 4,000 angstrom units, with the maximal intensity at 3,800 angstrom units.

The wavelength of the light emitted by fluorescent nails was measured by means of the spectroscope. The spread was between 5,400 and 6,000 angstrom units, with the maximal intensity at 5,700 to 5,800 angstrom units. Normal nails exhibited very little fluorescence but on spectroscopic measurements showed a fluorescent band between 4,800 and 5,800 angstrom units, with

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maximal intensity at about 5,100 angstrom units. During these studies the only source of light was the mercury arc lamp with the light transmitted through Corning filters 5970, 5840 or 5860.

The fluorescent wavelength of solutions extracted from nail, skin and hair of a person receiving atabrine also was measured. The results were similar to those noted in previous paragraphs with the wavelength spread between 5,300 and 5,800 angstrom units and the maximal intensity emitted at 5,700 angstrom units. This is the same as found in a known standard solution of atabrine dihydrochloride dihydrate. The same source of light was used as in the direct wavelength measurement of the nail itself after it had passed through the Corning filter 5970.

Quantitative photofluorometric determinations [1] were performed with the Pfatz-Bauer fluorophotometer. The results shown in the accompanying table were obtained.

The filters used in these determinations were the Corning 5113 and 3389 between the lamp and sample tube and the Corning 3384 between the sample tube and the photoelectric cell.

The findings noted in previous paragraphs mean little as far as the quantitative determinations are concerned because individual dosages of atabrine vary greatly and the degree of absorption of atabrine from the gastrointestinal tract is likewise variable. Nevertheless it is clearly evident that demonstrable amounts of atabrine are found in the skin, hair and nails.

Atabrine in Micrograms per Gram of Tissue

Nails	Hair	Skin
1. 2.6	1. 27.2	1. 10.4 wet weight
2. 5.2	2. 47.6	28.1 dry weight
3. 0.63 *		

* This person had discontinued taking atabrine three and a half months before the clippings of nail were obtained.

Why the nails of persons receiving atabrine show intense fluorescence is a question that remains unanswered. This type of fluorescence has not been seen in any other condition.

It would be valuable and interesting to determine the amounts of atabrine in the affected skin of persons with the "atypical lichen planus" syndrome as compared with clinically normal skin of the same person and also to compare with the skin of nonaffected persons receiving atabrine. Unfortunately no person with this affliction was encountered during the period of this study.

SUMMARY

Brilliant yellow-green fluorescence of the nails of persons receiving atabrine is exhibited under the Wood type of spectral filter, and atabrine in demonstrable amounts is present in the hair, nails and skin.

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Medicine as a Career for Women.—An important development of the nineteenth century was the admission of women to the medical profession. From time to time, throughout the preceding centuries, women had been engaged in the practice of medicine and some of them, notably Trotula of Salerno, had assisted in medical teaching. Nevertheless it was only within recent years that women came to be accepted as medical students and as practitioners on the same terms as men.—Guthrie, Douglas: A History of Medicine, Philadelphia, J. B. Lippincott Company, 1946.

THE ARTIFICIAL MENOPAUSE AND CANCER OF THE BREAST

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Our knowledge of the etiology of cancer of the breast has been greatly helped by experimental investigations on animals, especially mice. At the present moment at least three factors must be admitted as contributory to the production of cancer of the breast in mice: (1) the hereditary factor, (2) the estrogenic or ovarian factor and (3) the nursing or milk factor.

The experimental results pertinent to items 1 and 2 and directly related to our subject have been summarized by Halberstaedter [1] as follows:

1. In strains which now show a high percentage of spontaneous mammary carcinoma, early castration of female mice reduces the incidence of carcinoma (Lathrop and Loeb [2] and Cori [3]).

2. In strains which are characterized by a low percentage of spontaneous tumor the administration of estrogen to female mice increases the incidence of spontaneous carcinoma (Lacassagne [4]).

3. Administration of estrogen induces the production of mammary carcinoma in male mice of strains in which this tumor never develops spontaneously (Lacassagne,[4] Bonser [5]).

4. Mammary carcinoma can develop in castrate male mice which are implanted with ovaries (Murray [6]).

5. Administration of estrogen produces mammary carcinoma in rats belonging to a strain which is free from spontaneous mammary carcinoma (Geschickter [7]).

6. The time required for the appearance of the mammary cancer depends on the dosage and on the estrogenic potency of the injection (Geschickter [7]).

A relationship between the ovarian function and the occurrence of cancer of the breast in man was intuitively suspected long before it was proved experimentally. Different investigators sought to modify the course of cancer of the breast by inhibiting the ovarian function. As early as 1889 Schinzinger [8] proposed oophorectomy as a treatment of cancer of the breast, but he did not himself try out this procedure. Beatson [9] in 1896 performed oophorectomy in 2 cases of cancer of the breast in women. In 1900 Boyd [10] cited 54 cases of this kind and found that improvement resulted in 35 per cent of them. In 1902 Thomson [11] recorded 80 cases of cancer in which he had performed oophorectomy. He observed improvement following treatment in 35 per cent of the cases. In 1905 Lett [12] reported 99 cases of cancer of the breast in which oophorectomy had been performed.

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1. Halberstaedter, L.: The Role of Artificial Menopause in the Treatment of Cancer of the Breast, J. Internat. Coll. Surg. **4**: 435, 1941.
2. Lathrop, A. E. C., and Loeb, J.: Further Investigation on Origin of Tumors in Mice, J. Cancer Research **1**: 1, 1916.
3. Cori, C. F.: Influence of Ovariectomy on Spontaneous Occurrence of Mammary Carcinoma in Mice, J. Exper. Med. **45**: 983, 1927.
4. Lacassagne, A.: Apparition de cancers de la mammelle chez la souris male soumise a des injections de folliculine, Compt. rend. Acad. d. Sc. **195**: 630, 1932.
5. Bonser, G. M.: The Effect of Estrone Administration on the Mammary Gland of Male Mice of Two Strains Differing Greatly in Their Susceptibility to Spontaneous Mammary Carcinoma, J. Path. & Bact. **41**: 217, 1935.
6. Murray, W. S.: Ovarian Secretion and Tumor Incidence, J. Cancer Research **12**: 18, 1928.
7. Geschickter, C. F.: Estrogenic Mammary Cancer in Rat, Radiology **33**: 439, 1939.
8. Schinzinger: Verhandl. d. Deutsch. Gesellsch. f. Chir. **18**: 28, 1889.
9. Beatson, G. T.: On the Treatment of Inoperable Cases of the Mammae: Suggestions for a New Method of Treatment, with Illustrative Cases, Lancet **2**: 104, 1896.
10. Boyd, I.: On Oophorectomy in Cancer of the Breast, Brit. M. J. **2**: 1161, 1900.
11. Thomson, A.: Analysis of Cases in Which Oophorectomy Was Performed for Inoperable Cancer of the Breast, Brit. M. J. **2**: 1538, 1902.
12. Lett, H.: Analysis of 99 Cases of Inoperable Carcinoma of the Breast Treated by Oophorectomy, Lancet **1**: 227, 1905.

In 41.3 per cent of female patients less than 50 years of age a clinical improvement which was manifested in arrest of the malignant growth was obtained. Pronounced palliative results were found, however, in only 23 per cent of these cases.

After Halberstaedter [13] in 1905 demonstrated the possibility of effecting sterilization by treatment of the ovaries with x-rays, the method of irradiation replaced the surgical procedure. De Courmelles [14] was probably the first to use x-rays in order to elicit an artificial menopause in a patient suffering from inoperable cancer of the breast. Wintz [15] was among the first to employ ovarian sterilization by means of x-rays as a treatment for cancer of the breast in women. In 1927 Kaplan [16] recommended the induction of artificial menopause in cases of cancer of the breast which were unsuitable for operative treatment. In 1930 Ahlbom [17] reported 163 cases in which irradiation of the ovaries was employed in treatment of cancer of the breast. His results were equivocal. Subsequently Steel,[18] Dresser,[19] Smith,[20] Taylor,[21] Martin,[22] Hoffman,[23] Ritvo and Peterson,[24] Archer and Cooper,[25] Hunt,[26] Clarkson and Barker,[27] Witherspoon,[28] Pohle,[29] Friedman, Finkler and Antopol [30] and Sittenfield [31] reported the regression of metastases following irradiation of the ovaries. Dresser [19] found a diminution of metastases in 30 per cent of his cases and clinical improvements without visible diminution of the metastases in 43.3 per cent of the cases. In 26.6 per cent of the cases no improvement occurred. Halberstaedter [1] in 1941 added to the literature 2 new cases and explained the biologic basis of the treatment.

The total number of cases so far reported by different authors is considerable and exceeds several hundred. It is difficult, however, to sum them up and to draw conclusions from them for the following reasons: *a*. In many of the cases the metastases themselves and not only the ovaries were irradiated directly. *b*. Metastases show different degrees of susceptibility to artificial menopause. *c*. Some of the cases in which artificial menopause was induced were free from metastases.

In regard to reason *a* it is of importance to note that in all cases of induction of the menopause in which metastases also were irradiated directly there has been agreement that the improvement in the condition of the metastases was not due to the local irradiation. The doses applied locally were small; the improvements obtained were considerably better than could be hoped for from the local irradiation alone. With regard to reason *b* it is of interest that the most pronounced improvement has been found in cases of metastases of the bone and skin. In cases of metastases of the bone, disappearance of the malignant infiltration and calcification of the osseous defect were observed. In cases of metastases of the skin, degeneration of the malignant nodules and their complete disappearance were observed (Halberstaedter;[1] Beatson [9] and Hoffman [23]). Opinions differ with regard to the effect of the treatment on metastases of the internal organs. In a number of cases of metastases of the lungs, improvement was achieved, but the number is small (Halberstaedter;[1] Hunt [26]).

In regard to reason *c* the work of Horsley [32] deserves notice. Bilateral complete oophorectomy was performed by him in 25 cases of cancer of the breast of all stages. At the same time mastectomies were performed. In this series of 25 cases there were only 2 recurrences. In a series of 148 cases in which bilateral oophorectomy was not performed, the number of recurrences rated 51.02 per cent. Recently in an editorial of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (May 20, 1944) and in an editorial by Leucutia [33] in the *American Journal of Roentgenology and Radium Therapy* the possible importance of the influence of the artificial menopause on the course of cancer of the breast is stressed. In the present paper we report our experience with artificial menopause induced in 60 cases. This treatment has proved effective in some cases and ineffective in others. A tentative explanation for this singularity will be offered.

THE MATERIAL STUDIED

Between May 1938 and January 1945 artificial menopause was induced by us by irradiation of the ovaries in 60 women with cancer of the breast. Table 1 lists our cases and presents for each case data pertaining to the stage of the disease at the time of operation, the histologic type of the tumor, the indications for the induction of artificial menopause and the subsequent course. Most of the cases were followed up to their issue at the time of this writing. In a small number of cases we failed to obtain all the data we wanted.

Table 2 classifies the cases according to the stage of the disease at the time of the first examination or at operation. The classification recommended by Steinthal is used. The stages are defined as follows:

Stage I. Cancers limited to the breast only, without evidence of metastases of the lymph nodes at operation.

Stage II. Cancers in which the microscopic examination discloses the presence of metastases from the tumor to the axillary lymph node without evidence of involvement of neighboring tissues and organs.

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TABLE 1.—*Data on Sixty Cases in Which Artificial Menopause was Induced by Irradiation of the Ovaries*

		Cancer		Ovarian Sterilization				
Case	Age	Date of Operation	Grade	Date	Indication	Condition Afterward	Present Condition	Histology of Tumor
1. J. L.	48	March '38	I	May '38	Myoma uteri	Good	Good	Adenocarcinoma
2. H. L.	48	March '36	II	Jan. '39	Local recidive; metastases in skin and lung	Disappearance of metastases; improved for 20 mo.	Died Dec. '41; metastases in liver and bones	Carcinoma solidum
3. E. C.	37	June '39	II	May '41	Bone metastases	Improved during 18 mo.	Died April '43; metastases in liver and bones	Adenocarcinoma
4. D. M.	40	Aug. '39	II	Nov. '43	Metastases in brain, supraclavicular lymph nodes	No improvement	Died April '44; metastasis in brain; small metastatic nodule in lung	Adenocarcinoma
5. M. I.	46	Dec. '39	II	Feb. '41	Local recidive	Disappeared	Good	Adenocarcinoma
6. D. D.	33	Nov. '40	II	Dec. '40	Preventive measure	Good	Good	Undifferentiated carcinoma
7. O. M.	43	First seen June '40; inoperable	III	Dec. '40	Prevention of extension	No improvement	Died May '41; metastasis in lungs, bones, lymph nodes	Adenocarcinoma
8. K. F.	41	May '40	II	Dec. '40	Metastases in bones, in skin	No improvement	Died March '41	Carcinoma simplex
9. K. B.	44	Nov. '40	III	Sept. '40	Metastases in bones	Lessening of pains	Died, date unknown	No histologic examination
10. O. S.	39	Nov. '40	III	Feb. '41	Metastases in lymph nodes, liver, Douglas pouch		Died Feb. '41	Carcinoma
11. B. H.	37	Oct. '40	II	Feb. '41	Local recidive, metastases in lungs, bones	No improvement	Died April '41	Carcinoma simplex
12. B. J.	44	Dec. '35	?	Jan. '41	Metastases in lungs	Improvement	Good	Unknown; operated abroad, no detailed report
13. R. J.	46	1938	II	Feb. '41	Local recidive	Good	Unknown (went abroad)	Adenocarcinoma
14. F. I.	44	Jan. '41	II	Feb. '41	Prophylactic	Good	Good	Adenocarcinoma
15. L. E.	48	July '40	II	Oct. '40	Metastasis in Douglas pouch	No improvement	Died Sept. '41	Carcinoma simplex
16. Z. M.	30	June '41	III	May '41	Preoperative measure	Local condition good	Died Oct. '42; metastasis in brain	Adenocarcinoma; comedocarcinoma; preoperatively irradiated and castrated, then mastectomy
17. P. E.	35	May '42	I	May '42	Bone metastasis	Improvement	Died Oct. '44; metastasis in liver, lymph nodes and bones	Intracanalicular carcinoma
18. A. N.	40	July '41	II	June '44	Lung metastasis	Improvement	Good	Adenocarcinoma
19. M. O.	45	May '41	III	June '41	Preventive	No evidence of metastasis	Still good Oct. '41; present condition unknown	Adenocarcinoma
20. N. H.	42	Nov. '39	..	June '41	Pleural metastasis	No improvement	Died June '43	Adenocarcinoma
21. B. Sh.	41	May '41	I	Nov. '42	Local recidive, lung metastasis			
22. K. V.	38	Sept. '41	III	Jan. '42	Carcinoma en cuirasse	No improvement	Died Oct. '43	Carcinoma simplex
23. W. A. F.	40	Nov. '40	II	June '42	Local recidive, bone metastasis	No improvement	Died April '43	Carcinoma simplex
24. Sh. E.	41	Nov. '41	III	July '42	Bone metastasis	No improvement	Died Nov. '43	Carcinoma simplex
25. K. M.	35	Feb. '42	III	Jan. '42	Metastases in lymph nodes, bones	Improvement	No pains in lymph nodes	Scirrhus
26. M. Y.	34	Nov. '41	II	June '43	Bone metastasis	Improvement	Died July '44	Carcinoma simplex
27. B. R.	32	Nov. '37	I	Aug. '40	Lung metastasis	Improvement	Good till Sept. '44; died	Adenocarcinoma
28. H. H.	45	April '41	II	Jan. '42	Metastasis in lung and liver			
29. R.	48	Dec. '40	III	Feb. '45	Bone metastasis	Improvement		
30. B. Z. I.	43	Jan. '42	II	Aug. '42	Preventive	Good	Died, date unknown; in 1944 ?	Scirrhus
31. I. R.	40	Jan. '42	—	May '42	Local recidive, lung metastasis	.....	.....	Carcinoma simplex
32. Teh. L.	43	Feb. '42	—	June '42	Bone metastasis	Improvement	Died Aug. '43	
33. K. R.	33	May '42	II	June '42	Lung metastasis; pleural exudate before castration but no other evidence of metastasis	Improvement	Good	Adenocarcinoma
34. H. Y.	31	Oct. '42	II	June '43	Liver metastasis	No improvement	Died Aug. '43	Carcinoma simplex
35. Sh. Z.	39	Jan. '42	II	Feb. '44	Preventive	Good	Good	Carcinoma
36. M. Sh.	40	Oct. '42	I	Sept. '43	Metastasis in liver, lungs, eye	No improvement	Died Nov. '43	Carcinoma simplex
37. N. A.	45	Dec. '41	II	Oct. '42	Bone metastasis, lymph nodes	Improvement	Died June ? '44	Carcinoma
38. A. S.	28	Oct. '42	II	April '43	Metastasis in liver, bones	No improvement	Died April '43	Carcinoma simplex
39. M. G.	41	Inoperable	III	Feb. '43	Metastasis in lymph nodes			
40. F. V.	47	Jan. '43	II	Jan. '44	Metastasis in bones	Improvement	Good	Fibrocarcinoma
41. A. Th.	33	.....	III	Oct. '43	Carcinoma en cuirasse	No improvement	Died Oct. '44	Intracanalicular squamous cell carcinoma
42. Z. S.	34	Inoperable	III	Nov. '43	Generalized carcinosis	No improvement	Died May '44	
43. F. R.	32	July '43	II	Feb. '44	Metastasis in bones	Improvement	Died June '44 from extensive lung metastasis	Adenocarcinoma
44. L. T.	39	Nov. '43	II	Jan. '44	Preventive	Metastasis in bones and lungs	Died May '44	Adenocarcinoma
45. W. E.	38	Inoperable	III	Sept. '43	Lymph nodes, skin metastasis	Local improvement	Living; carcinoma en cuirasse; has received local irradiation, small doses	
46. A. F.	46	Inoperable	III	Feb. '44	Metastasis of bones	No improvement		
47. P. T.	40	Inoperable	III	Feb. '44	Inoperability	Improvement	Bone metasasis; living; local recidive; has received local irradiation	
48. E. I.	38	Jan. '43	..	April '44	Brain metastasis	No improvement	Died Aug. '44	
49. W. Z.	40	Inoperable	III	Oct. '43	Bone metastasis	Improvement	Died Oct. '44; post mortem: lung, liver, bone metastases	Adenocarcinoma
50. P. L.	36	Nov. '42	..	Dec. '43	Bone metastasis	No improvement	Died Dec. '45	
51. W. H.	29	Jan. '43	II	July '44	Bone metastasis	Improvement	Good	
52. B. Z.	47	March '43	II	May '44	Bilateral breast tumor; bone metastasis	Improvement	Good	Adenocarcinoma
53. Z. Z.	21	Dec. '42	..	May '44	Local recidive	Improvement	Good	Adenocarcinoma
54. Z. M.	37	March '43	II	March '44	Bone metastasis	Improvement	Died Jan. '45	
55. Z. B. Sh.	40	April '44	II	March '45	Bone metastasis	No improvement	Died June '45	
56. W. H.	35	Sept. '42	II	Aug. '44	Lung metastasis	Improved	Good June '45	
57. O. B.	32	Inoperable	III	Dec. '44	Bone metastasis	Improved	Good	
58. M. S.	36	Inoperable	III					
59. F. S.	32	Dec. '42	I	Dec. '44	Bone metastasis	Improved	Good	
60. S. R.	45	Inoperable	III	Jan. '45	Bone metastasis	Improved	Good	

Stage III. Cancers in which adjacent or distant tissues or organs are involved, e. g. a pectoral muscle, the skin when ulcerated, the opposite breast, the cervical lymph nodes, skeletal tissues. Stage III corresponds to the inoperable stage. In it the existence of metastases is clinically self evident, and histologic proof of the authenticity of this stage is unnecessary. Cases designated stage I and II may have to have ovarian sterilization later for distant metastases even though there is no local recurrence. This illustrates the insecurity of the Steinthal classification in determining the stage of the disease. It is indisputable that an alleged stage I case in which a distant metastasis occurs must have had distant metastases at operation even though no involvement of the lymph node was found at that time. In reality, therefore, the case should have been graded the Steinthal stage III. The uncertainty of the classification is probably the reason why the beneficial results of the artificial menopause shown in table 2 manifest no clearcut correlation with the designated stage of the disease.

Table 3 gives a survey of our cases according to the distribution of the metastases in various organs and tissue. It should be noted that different organs and tissue can be involved in any given case. Case 2, for instance, presented metastases of the lung as well as of the bone. It therefore figures in the table twice.

TABLE 2.—*Beneficial Results of Artificial Menopause in Various Stages of the Disease*

Stage of Disease	No. of Cases	No. of Cases with Improvement	No. of Cases with No Improvement
Stage I	6	4	2
Stage II	28	17	11
Stage III	19	10	9
Unknown	7	3	4
	60	34	26

Table 4 classifies the cases according to the histologic type of the mammary tumor. Not all the tumors were examined by the same pathologist. A glance at the table shows the lack of unity which characterizes the histologic nomenclature. Different pathologists use different nomenclatures and landmarks in designating the type of a tumor. There is, however, agreement that adenocarcinoma is a tumor presenting a more differentiated type of cells than carcinoma simplex. But it can happen that a given tumor will show in one place the picture of an adenocarcinoma and in another the picture of carcinoma simplex. When a given designation is used it should be taken to mean only that the type given is preponderant. Although these reservations are valid, the curious fact remains that in the cases which are reported in table 4 irradiation of the ovaries is clearly more effective on adenocarcinoma than on carcinoma simplex. We shall return to this point later.

The term "improvement" as used in the table requires explanation; it designates cases in which ovarian sterilization was found to produce an alleviation of the symptoms of the disease. Cases are reported as improved only if the alleviation could be explained solely as an influence of the induction of the artificial menopause. The designation of improvement is not limited only to cases in which objective clinical signs of regression of the metastases could be found. It applies also to cases in which a durable subjective improvement was obtained. Table 1 shows separately both the cases in which the metastases regressed and those in which the improvement of the patient was subjective.

It should be borne in mind that the processes of regression of a tumor and of regeneration of tissue at the site of a regressed metastasis are complex. Actual disappearance of a metastasis would constitute, of course, a decisive proof of the value of the artificial menopause. The influence of the artificial menopause, however, can also consist in a restriction only of the growth. In such cases improvement in the condition of the patient is obtained although no actual regression of the tumor occurs.

TABLE 3.—*Distribution of the Metastases and Results of Artificial Menopause*

Indication and Localization of Metastases	No. of Cases	No. of Cases with Improvement	No. of Cases with No Improvement
Bone	26	18	8
Lung and pleura	12	6	6
Skin and local recidive	12	5	7
Lymph nodes	5	1	4
Liver	5	..	5
Brain	2	..	2
Miscellaneous	8	4	4
Preventive	9	6	3
	79	40	39

COMMENT

In the period between March 1938 and January 1945, 393 women suffering from cancer of the breast were seen at our institute. In 60 of them, or in 15 per cent of the total, ovarian function was interrupted artificially. This high percentage should not be taken to mean that irradiation of the ovaries is used by us as a routine measure in treatment of carcinoma of the breast. Cessation of the periods is regarded by the patient as a heavy sacrifice. It is not easy to advise a patient to accept in addition to the operation on the breast an artificial menopause and the profound disturbance in hormonal constitution which it involves. As a rule, artificial menopause is induced by us only when metastases can be shown to have developed. Pending proof of the efficacy of the artificial menopause as a prophylactic measure we performed ovarian sterilization preventively in only a few cases.

TABLE 4.—*Results of Artificial Menopause Related to the Histologic Type of the Tumor of the Breast*

Histologic Type of Breast Tumor as Given by Pathologist	No. of Cases	No. of Cases with Improvement	No. of Cases with No Improvement
Adenocarcinoma	18	13	5
Carcinoma simplex	11	1	10
No microscopic examination	21	12	9
Scirrhous	2	2	..
Fibrocarcinoma	1	1	..
Carcinoma	3	2	1
Intracanalicular carcinoma	2	1	1
Carcinoma solidum	1	1	..
Undifferentiated carcinoma	1	1	..
	60	34	26

Our technic for sterilization of the ovaries by x-rays is as follows: Each ovary is given 350 roentgens four times. The half-value layer is 0.95 mm. of copper. The skin target distance is 40 cm. and the field is 10 by 15 cm. The anterior and posterior pelvic fields on one side are taken on alternating days. When one ovary has been irradiated on four consecutive days, the treatment of the other ovary follows on the next four days or after a short interval.

When results are measured in terms of "improvement" as herein defined, a high proportion of the cases are seen to be responsive, namely 56 per cent (table 1). This is a higher rate than has hitherto been reported in the literature. We consider that it expresses truly the potentialities of the artificial menopause as a treatment of cancer of the breast. The disparity in the numerical values is due to our specific interpretation of the term "improvement." Whereas most authors report cases as improved only if the regression of metastatic infiltration can be shown objectively, i. e. either clinically by examination or radiographically, we consider it proper to report a case as improved even if the alleviation of the symptoms, e. g. diminution of pain in metastases of the bone or dyspnea in metastases of the lung, is experienced only subjectively. It will be shown that there is special reason to consider that a real improvement in this disease, especially in cases of metastases of the bone, need not always be one that will visualize in the roentgenogram.

The cases are grouped according to stage in table 2. Stages I and II are so designated on the basis of microscopic histologic examinations, the presence or absence of metastases in the lymph nodes being verified microscopically. Since presence of metastases formed the principal indication for irradiation of the ovaries, the majority of those treated are from stages II and III. As far as can be judged from the relatively meager material available there is no appreciable difference between these two groups in regard to the relative proportion of improvement. In stage II, 60.7 per cent of those treated; in stage III, 52.6 per cent are improved. It is to be expected that the efficacy of interruption of ovarian function, taken as a general measure against metastases, will be independent of the number of metastases, i. e. of the designated stage of the disease. The data show furthermore that distant metastases may already be present even in cases designated as stage I.

Table 3 shows that irradiation of the ovaries was indicated in most of the cases which involved metastases of the bone. Metastases of the bones responded particularly favorably to induction of the artificial menopause. Improvements in this group rated 69 per cent. Metastases of the lung and pleura reacted favorably in 50 per cent of the cases; cutaneous metastases and local recurrences reacted less favorably; metastases of the lymph nodes showed little response. No improvement was observed in metastases of the liver and brain. Of special interest is the group in which ovarian sterilization was done preventively in the absence of clinical evidence of metastases. Of 8 patients in this group, 6 are well and alive.

Table 4 classifies the cases on the basis of the microscopic observations. Tumors designated as adenocarcinoma total 18. Improvement was obtained in this type of tumor in 13 cases, i. e. in 72 per cent. The number of the cases designated as carcinoma simplex is 11. In this group only 1 patient reacted favorably to ovarian sterilization. It seems reasonable to conclude from the comparison of results obtained for these two types of carcinoma that irradiation of the ovaries is especially effective on metastases from adenocarcinoma.

The criteria which the pathologist employs to distinguish adenocarcinoma from carcinoma simplex require consideration. According to the definition given by Ewing,[34] "adenocarcinoma . . . is a type in which the growth reproduces, more or less completely, the original gland alveoli from which the tumor springs. It is a partially developed form of carcinoma in which the arrangement of cells in alveoli with central lumens, the polarity of the cells, and frequently some trace of their function, are partially preserved." In carcinoma simplex these characteristics are absent. Ewing continues "The cell groups do not, as a rule, surround a central lumen but lie compactly. Yet in many cases the restoration of a small lumen very readily appears in occasional cell groups and should not release the tumor from consignment to the anaplastic class of true carcinoma." So defined the two groups of tumors are completely distinct, and their histologic interpretation should be unequivocal. Pathologists, however, hesitate to adopt a precise classification of carcinoma because tumors may sometimes present a changing aspect when different parts are examined. In parts an adenocarcinoma can sometimes exhibit a distinctly more anaplastic picture and a carcinoma simplex a more typical cell form than is suggested by the general histologic aspect of the tumor. Broders[35] employs the criteria of anaplasia and dedifferentiation in his microscopic grading of carcinomas. To the objection that the histologic picture of the tumor may change from part to part, he remarks "As a rule a carcinoma shows practically the same grade of malignancy throughout. . . . Certain adenocarcinomas have been exceptions, but the percentage is so small that its influence is practically negligible." In Broders' classification the term carcinoma simplex is abandoned and replaced by a grade number. Exact histologic classification of the grade of a cancer is clearly important in fixing the indication for interruption of ovarian function. The best chances of improvement resulting from ovarian sterilization relate to those cases in which the cancerous cells are euplastic and typical, the so-called adenocarcinoma, whereas in cases in which the cancer cells are anaplastic and nontypical, the so-called carcinoma simplex, the chances for improvement are far less.

Experimental research on animals has clearly demonstrated the importance of the role played by estrogenic substance in the production of mammary cancer in mice. In these animals the gradual transformation of the mammary gland into an adenocarcinoma under the influence of glandular treatment has been followed step by step. This work has demonstrated that estrogenic substance has a specific stimulating action on the cells of the mammary gland. It is proper to inquire whether this stimulating action is restricted to the normal cell or extends also to the transformed cell of carcinoma of the breast. It seems logical to assume that a malignant cell which is derived from the mammary gland is not without some resemblance to other cells of the same origin. In that case it is possible that, just as the normal growth of the mammary cell is enhanced by the hormone, so too is the growth of the malignant offspring of that cell. The malignant process is of course not reversible, and the withdrawal of the stimulating estrogen cannot therefore bring about a return of cancerous tissue to normalcy. But the growth of cancer can be favored by some factors and can be arrested by others. It seems probable that estrogenic substance is a stimulant and accelerant of mammary tumor. The withdrawal of the hormone can probably diminish the vitality of the malignant cell. However, the growth of a malignant tumor in the body is not realized without a conflict. In this conflict the issue is sometimes in favor of the

34. Ewing, J.: Neoplastic Diseases, ed. 4, Philadelphia, W. B. Saunders Company, 1942, pp. 521-522.

35. Broders, A. C.: Practical Points on Microscopic Grading of Carcinoma, New York State J. Med. **32**: 667, 1932.

body, more often in favor of the tumor. Suppose now that one of the activating factors in the growth of a tumor is withdrawn. Then the natural defenses of the body will be better able to overcome the cancer. There can result in such a case either (1) complete destruction of the growth with objective clinical signs of the disappearance of the metastases or (2) partial arrest of the growth, in which case an improvement will be felt subjectively but there will be no other clinical signs of disappearance of the metastases.

The possibility of spontaneous regression of metastases in the bone has been pointed out by Kienböck [36] and Erdheim.[37] The last named author has published a record of microscopic studies made post mortem in a case [38] in which signs of spontaneous healing were detected in an osteoclastic vertebral metastasis from an ovarian carcinoma. In this case cicatricial tissue replaced the bone marrow, the cortex of the vertebra remaining essentially intact. Such a regression of metastases in the bone cannot of course be visualized in a roentgenogram since it appears in the latter only as a cyst of the bone. In other cases there may occur a neoformation of bone and a partial filling out of the cavity created by the metastases. In these cases the roentgenogram shows a densification of the shadow in the place of the previous bone defect.

The natural tendency of some osseous metastases to regress spontaneously offers a possible explanation for the high incidencé of improvement observed by us and others in the cases of metastases to the bone from carcinoma of the breast in which the artificial menopause had been induced.

Why should typical adenocarcinoma be more vulnerable than is carcinoma simplex to the withdrawal of estrogenic substance? Histologically the adenocarcinoma tends to reproduce more or less completely the form of the original alveoli of the gland. This morphologic resemblance can be accompanied also by a functional resemblance. It may be expected therefore that estrogenic substance will be able to stimulate the growth and reproduction of the adenocarcinomatous cell to a greater degree than it will that of other varieties of cells of carcinoma of the breast. When the hormone is withdrawn, the malignant adenocarcinomatous cell is deprived of an important growth enhancing factor. Its vitality being lowered, different factors which oppose its growth in the body can obtain an upper hand. In carcinoma simplex the malignant cell is remoter morphologically and functionally from the parent cell than in adenocarcinoma. In carcinoma simplex, accordingly, withdrawal of estrogenic substance fails to exert the pronounced effect which follows the withdrawal of the hormone in cases of adenocarcinoma.

Improvement following irradiation of the ovaries is temporary, lasting in our cases with few exceptions from one-half to two years. In the cases of Clarkson and Barker [27] the improvement lasted more than five years, and in the second case reported by Halberstaedter [1] four years. Probably the transience of the improvement is due to the fact that ovarian sterilization either by irradiation or by surgical intervention does not stop completely the flow of estrogenic hormones in the body. Estrogenic hormones can occur in the blood and urine of a woman even in absence of periodic bleeding, in both artificial and natural menopause. Zondek and von Euler [39] found 30 mouse units of estrogen per liter in the urine of a woman aged 74. Robson, MacGregor, Illingworth and Steere [40] found still significant amounts of estrogen in the urine ten years after the beginning of the menopause. Frank, Goldberger and Spielman [41] demonstrated an estrogenic cycle in the blood of a woman whose uterus and ovaries had been extirpated. Laroche, Simonnet and Huet [42] found estrogen in the urine of 26 women who had been oophorectomized; in 1 the amount of estrogen reached 200 mouse units per liter of urine, in 3 there were 50 and in 8, 20 mouse units per liter. This proves that the arrest of the production of estrogen following oophorectomy is temporary and incomplete.

The origin of the estrogenic substance secreted after castration is still in doubt. In this connection interesting experiments of Fekete, Woolley and Little [43] deserve mention. It was found by these authors that hyperplasia of the adrenals characteristically follows castration in a certain strain of mice. Some time after castration, the genital tract of females of this strain becomes normal. Considering the known interrelationship of ovaries and adrenals, and in particular the steroid metabolism of the latter, it seems safe to conclude that the adrenals are the site of the vicarious secretion of estrogenic substance in this particular strain of mice. The hyperplastic adrenal gland is probably not the only organ other than the gonad able to secrete estrogenic substance. Glands which are endocrinologically related to the ovaries, e. g. the pituitary and the thymus, probably share this property. The withdrawal of estrogenic substance following the sterilization of the ovaries is therefore temporary. The hormonal deficit is apparently compensated in the body by other routes, some of which are still unknown. The inhibition of the vicarious secretion is difficult, since it derives not from one known gland but from several glands of the body.

Irradiation of the adrenal glands might possibly diminish the estrogenic secretion. As yet, however, this hypothesis cannot be supported by clinical evidence. Administration of androgens is perhaps a further possible means of combating the secretion of estrogen. Nathanson and Andervont,[44] Gardner [45] and Jones [46] have demonstrated that in a highly susceptible strain of mice testosterone administered under proper conditions partially inhibits the appearance of mammary cancer. Loeser [47] reported favorable results with androgens in cases of metastases of cancer of the breast in women. This favorable opinion is opposed by Farrow and Woodard,[48] who observed acceleration of the growth of metastases in bone when androgens were given.

36. Kienböck, R.: Welche sind die wichtigsten radiologischen Zeichen der krebsigen Knochenmetastasen und wie ist ihr Verlauf, Wien. klin. Wchnschr. **41**: 1541, 1928.
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42. Laroche, G.; Simonnet, H., and Huet, J. A.: Contribution à l'étude des variations du taux de la folliculine chez la femme, Compt. rend Soc. de biol. **113**: 286, 1933.
43. Fekete, Elizabeth; Woolley, George, and Little, C. C.: Histologic Changes Following Ovariectomy in Mice: dba High Tumor Strain, J. Exper. Med. **74**: 1, 1941.
44. Nathanson, I. T., and Andervont, H. B.: Effect of Testosterone Propionate in Development and Growth in Mammary Carcinoma in Female Mice, Proc. Soc. Exper. Biol. & Med. **40**: 421, 1939.
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46. Jones, E. E.: Effect of Testosterone Propionate on Mammary Tumors in Mice of CaH Strain, Cancer Research **1**: 787, 1941.
47. Loeser, A. A.: Mammary Carcinoma Response to Implantation of Male Hormone and Progesterone, Lancet **2**: 698, 1941.
48. Farrow, J. H., and Woodard, H. Q.: Influence of Androgenic and Estrogenic Substances on Serum Calcium in Cases of Skeletal Metastasis from Mammary Cancer, J. A. M. A. **118**: 339 (Jan. 31) 1942.

Fels [49] claims that a regression of metastases can be induced by the use of androgens. The effect of androgens is really, however, only a side issue. The important fact is that interruption of estrogenic stimulation can exert a beneficial effect on cancer of the breast.

SUMMARY AND CONCLUSION

In 60 women suffering from cancer of the breast and its metastases artificial menopause was induced by irradiation of the ovaries. Thirty-four women, or 56 per cent, benefited from this treatment. The improvement due to the interruption of estrogenic secretion is of short duration, since vicarious estrogenic secretion from other sources than the ovaries intervenes. Typical adenocarcinomas are more susceptible than anaplastic cancer of the breast to the estrogen-inhibiting influence of the artificial menopause.

BLEEDING FROM THE CERVIX AFTER SUBTOTAL HYSTERECTOMY

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There is a wealth of literature regarding the incidence of carcinoma in the residual cervical stump, but there are no reliable statistics to indicate the frequency of its occurrence. References to means of diagnosis and prevention are scanty. It might be expected that vaginal bleeding would be an early symptom, but its full significance is not generally appreciated.

A recent survey of postmenopausal bleeding has been made in this clinic for the period of Jan. 1, 1938 to July 1, 1945 and the results have been reported elsewhere.[1] During this study 87 cases of cervical stump bleeding were uncovered and segregated for subsequent presentation. Of this group 40 patients, or 46 per cent, were found to have a cervical cancer. Such a figure commands respect, since every case of bleeding after subtotal hysterectomy was investigated. Of these 40 there were 6, or 15 per cent, who had a benign appearing cervix at the time they were first seen complaining of bleeding.

To illustrate this point 1 case in which a dangerous lesion was overlooked is presented here:

A Negro woman aged 37, nulliparous, underwent a difficult subtotal hysterectomy with removal of tubo-ovarian abscesses after unsuccessful conservative therapy. The cervix appeared normal. The patient had never had intermenstrual or postcoital bleeding. There was no indication for removal of the cervix at the operation, which was very difficult because of the presence of the severe pelvic inflammatory condition. After a smooth hospital course she was discharged. When she returned one month later she stated that she had experienced a little bleeding on one occasion. It was thought possible that some endometrium remained and that some ovarian tissue had been left adherent to the bowel during the difficult dissection. For this reason and because the cervix again appeared normal, the patient did not receive the usual study. Two months later she reported two more episodes of scanty bleeding at monthly intervals. A biopsy showed epidermoid carcinoma, which must have been present in the cervical canal three months earlier when the laparatomy was done.

It is clear from our small group of cases that the only sure way to detect early carcinoma after a subtotal hysterectomy is to view any bleeding with alarm, regardless of the appearance of the cervix.

SIGNIFICANCE OF OVARIAN REMOVAL

Although the series is too small to justify conclusions as to the relationship of the ovaries to subsequent bleeding or development of cancer, the cases are divided here into appropriate groups. The preliminary impression is that the incidence of cancer is not appreciably altered by the presence or absence of the ovaries.

Status of Ovaries	Patients with Cervical Cancer	Patients Without Cervical Cancer
One or both remaining	22	34
Both absent	8	8
Details not known	10	5
Total number	40 (46%)	47 (54%)

PREVENTION

Von Graff [2] in 1934 reviewed the literature on carcinoma of the cervical stump and discovered that in 581 cases 23.5 per cent were recognized in less than one year and about 40 per cent in less than two years after operation. Martzloff [3] in 1942 again reviewed the literature and reported that 20 per cent of all cases came to light within one year and 40 per cent occurred within three years after operation.

It seems plausible, then, that many subtotal hysterectomies are performed in the presence of an early carcinoma of the cervix. It is well known that this condition often proliferates without any signs or symptoms.

In March 1944 the policy was initiated in our gynecologic dispensary to make a routine biopsy of material from the cervix of each patient on whom a major gynecologic procedure was planned. During the period included in this study carcinomas were found in 9 cervices that did not present suggestive indications. This includes a few cases discovered before the biopsy procedure became a definite routine.

In May 1943 we began to cut routinely multiple sections for microscopic study from all cervices removed. Since that time 3 cases of carcinoma of the cervix have been discovered in cases in which then the biopsy appeared normal. Four additional carcinomas were discovered by this means in patients who had undergone vaginal repair operations (with removal of the cervix).

SUMMARY AND CONCLUSIONS

1. Bleeding from the cervical stump after a subtotal hysterectomy should be investigated.

2. Of 87 patients who presented themselves at this hospital with bleeding from the cervical stump between Jan. 1, 1938 and July 1, 1945 46 per cent were found to have carcinoma of the residual cervix.

3. Regardless of a history suggesting the presence of menstruating endometrium, regardless of the appearance of the cervix and regardless of estrogen therapy, every patient who has vaginal bleeding at any time after a subtotal hysterectomy deserves a biopsy of the cervix and a gentle curettage of the cervical canal.

4. It is hoped that preoperative study will decrease the number of patients on whom a subtotal hysterectomy is performed in the presence of an unrecognized early carcinoma of the cervix.

49. Fels, E. J.: Treatment of Breast Cancer with Testosterone Propionate, J. Clin. Endocrinol. **4**: 121, 1944.

From the Department of Gynecology of the Johns Hopkins University and Hospital.

1. Cheek, D. B., and Davis, J. E.: Pathological Findings in Genital Bleeding Two or More Years After Spontaneous Cessation of Menstruation, to be published.

2. Von Graff, E.: Cancer of Cervical Stump Following Subtotal Hysterectomy, Am. J. Obst. & Gynec. **28**: 18, 1934.

3. Martzloff, K. H.: Routine Abdominal Panhysterectomy as Prophylaxis Against Cancer of Cervical Stump, Surg., Gynec. & Obst. **75**: 628, 1942.

Special Article

TYPHOID IN THE LARGE CITIES OF THE UNITED STATES IN 1945

Thirty-Second Report

The last review of typhoid deaths was that of 1942. Owing to desired economies in publication, the two succeeding years have been omitted. However, statistical data for 1943 and 1944 are included in the present summary. As in previous years, a communication was addressed to the health officer of each of the cities requesting the number of deaths from typhoid, excluding paratyphoid, both among residents and among nonresidents as recorded in each of the three years 1943, 1944 and 1945.

Each health officer was asked to record an estimate of population for each of the three years. Some are continuing to use the 1940 census figures; others have prepared local estimates using ration book data or adjustments which are questionable. For most of the cities of 100,000 population or more the Bureau of the Census has no estimates of population for dates since 1940. There are figures for a few of these cities, based on special censuses or sample censuses for various dates since 1940. Figures are available for the total population of cities (Detroit, Long Beach, Los Angeles, Norfolk, Oakland, Portland, San Diego, San Francisco, Seattle, Tacoma) in the ten congested production areas where sample censuses were taken by the Bureau of the Census in 1944. A special census was also taken in San Francisco in August 1945. Estimates of the civilian population of counties are available for March 1 and Nov. 1, 1943 based on registrations for war ration books 2 and 4. Some of the cities (Baltimore, Denver, New Orleans, New York, Norfolk, Philadelphia, Richmond, St. Louis, San Francisco, Washington) are coterminous with their counties, and the figures given in the releases are city as well as county estimates. Estimates of the total population of Washington have been made for July 1 of each year 1940 to 1944. Since for the vast majority of cities no official figures are available for any date subsequent to that of the 1940 federal census, it has again been deemed advisable to employ the populations determined by this uniform tabulation. It is recognized that in areas of concentration of military and industrial activities a slight error will result, and some city and group rates may be a little too high and even too low. For those cities for which special census figures are available, corrections in rates have been shown in footnotes. In most instances there are no changes in the rates. In no instance has any rate been extended beyond the first decimal point, and it is realized that this creates a slight disadvantage for the very large cities which now have but a single death from typhoid (Chicago, Detroit).

Paratyphoid has again been excluded. Special note has been made of cities in which all deaths occur among nonresidents. In addition to the fifty-eight cities enumerated on the honor roll in table 8, eight cities (Columbus, Detroit, Indianapolis, Knoxville, Nashville, New Orleans, San Francisco, Wilmington) are qualified for such acclaim but have been charged with typhoid deaths among nonresidents cared for in these cities. In eight other cities (Atlanta, Baltimore, Birmingham, Camden, Cincinnati, Houston, Louisville, Richmond) more than one third of the reported deaths were stated to have been among nonresidents. One city with more than one million inhabitants (Detroit) records no death among residents.

TABLE 1.—*Death Rates of Fourteen Cities in New England States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Cambridge	0.0	0.0	0.2*	0.8	2.1	4.3	2.5	4.0	9.8
Fall River	0.0	0.0	0.2	0.2	2.2	2.3	8.5	13.4	13.5
Lynn	0.0	0.0	0.2	0.2	1.5	1.6	3.9	7.2	14.1
Springfield	0.0	0.0	0.3*	1.1†	0.4	2.0	4.4	17.6	19.9
Hartford	0.0	0.0	0.5	1.0†	1.3	2.5	6.0	15.0	19.0
Somerville	0.0	0.0	0.6	0.4	1.3	1.6	2.8	7.9	12.1
Worcester	0.0	0.1	0.2*	0.5*	1.0	2.3	3.5	5.0	11.8
Bridgeport	0.0	0.1	0.4	0.3	0.5	2.2	4.8	5.0	10.3
Lowell	0.0	0.2	0.4	1.2	2.6	2.4	5.2	10.2	13.9
Providence	0.0	0.2†	0.6	1.1†	1.3	1.8	3.8	8.7	21.5
New Haven	0.0	0.2†	1.0	0.7†	0.6	4.4	6.8	18.2	30.8
Waterbury	0.0	0.8	0.2	0.4	1.2	1.0	8.0	18.8	....
Boston	0.1	0.1	0.3†	0.6	1.2	2.2	2.5	9.0	16.0
New Bedford	0.9	0.2	0.4	1.1	1.5	1.7	6.0	15.0	16.1

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.

TABLE 2.—*Death Rates of Eighteen Cities in Middle Atlantic States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Yonkers	0.0	0.0	0.3	0.7	0.5	1.7	4.8	5.0	10.3
Scranton	0.0	0.0	0.3	1.4	1.8	2.4	3.8	9.3	31.5
Erie	0.0	0.0	0.7†	1.2	0.9	2.3	6.9	49.0	46.6
Albany	0.0	0.0	1.2†	1.2	1.8	5.6	8.0	18.6	17.4
Trenton	0.0	0.0	1.4†	1.1	2.1	8.2	8.6	22.3	28.1
Rochester	0.0	0.1	0.3†	0.4	1.7	2.1	2.9	9.6	12.8
Jersey City	0.0	0.1†	0.6	0.3	0.9	2.7	4.5	7.2	12.6
Paterson	0.0	0.1*	0.7†	0.9	1.0	3.3	4.1	9.1	19.3
Buffalo	0.0	0.2	0.1	0.6	2.7	3.9	8.1	15.4	22.8
Reading	0.0	0.2	0.5	0.4	1.6	6.0	10.0	31.9	42.0
Syracuse	0.0	0.3†	0.3*	0.8	0.8	2.3	7.7	12.3	15.6
Utica	0.0	0.4†	0.2*	0.2	1.1	3.9#	...	....	....
Elizabeth	0.0	0.4	0.5	0.9	1.6	2.4	3.3	8.0	16.6
New York	0.1	0.1	0.3	0.8	1.3	2.6	3.2	8.0	13.5
Pittsburgh	0.4	0.3	0.7	0.9	2.4	3.9	7.7	15.9	65.0
Newark	0.5	0.1	0.3	0.4	0.9	2.3	3.3	6.8	14.6
Philadelphia	0.6	0.3	0.8	0.9	1.1	2.2	4.9	11.2	41.7
Camden	1.7†	0.5†	1.4†	2.7	4.4	5.9	4.9	4.5	4.0

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.

TABLE 3.—*Death Rates of Ten Cities in South Atlantic States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Charlotte	0.0	0.0†	1.6†	2.5	...	...	....	....	....
Baltimore	0.2†	0.3†	0.9†	1.4	3.2	4.0	11.8	23.7	35.1
Washington	0.3¶	0.4¶	1.1	2.2	2.8	5.4	9.5	17.2	36.7
Miami	0.6	0.6	2.4	2.0	3.5	...	....	....	....
Jacksonville	0.6	0.8	2.3	1.6	4.4	...	....	....	....
Norfolk	0.7¶	0.5¶	1.1†	3.3	2.2	2.8	8.8	21.7	42.1
Wilmington	0.5*	0.2*	0.5	1.5	3.1	4.7	25.8#	23.2#	33.0
Atlanta	1.0†	0.5†	2.1†	7.3	11.1	14.5	14.2	31.4	58.4
Tampa	1.8	1.8	0.6†	3.4	3.8	19.1	43.5#	....	....
Richmond	2.1†‖	1.3†‖	2.5†	2.4	1.9	5.7	9.7	15.7	34.0

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.
‖ 1943 special census gives rate of 1.8 for 1945 and 1.2 for 1941-1945 for Richmond.
¶1944 special census gives rate of 0.2 for 1945 and 0.3 for 1941-1945 for Washington, and rate of 0.4 for 1945 and 0.2 for 1941-1945 for Norfolk.

The preceding articles in this series were published in THE JOURNAL May 31, 1913, p. 1702; May 9, 1914, p. 1473; May 17, 1915, p. 1322; April 22, 1916, p. 1305; March 17, 1917, p. 845; March 16, 1918, p. 777; April 5, 1919, p. 997; March 6, 1920, p. 672; March 26, 1921, p. 860; March 25, 1922, p. 890; March 10, 1923, p. 691; Feb. 2, 1924, p. 389; March 14, 1925, p. 813; March 27, 1926, p. 948; April 9, 1927, p. 1148; May 19, 1928, p. 1624; May 18, 1929, p. 1674; May 17, 1930, p. 1574; May 9, 1931, p. 1576; April 30, 1932, p. 1550; May 13, 1933, p. 1491; May 19, 1934, p. 1677; June 8, 1935, p. 2093; June 6, 1936, p. 1983; June 19, 1937, p. 2118; July 30, 1938, p. 414; May 13, 1939, p. 1941; May 25, 1940, p. 2103; Jan. 17, 1942, p. 222; Aug. 8, 1942, p. 1188, and Aug. 21, 1943, p. 1181.

The number of cities with no typhoid death during the past two or more years has increased from thirty-one in 1942 to forty-one in 1945 (table 10). Fort Wayne continues to head the list with no death in eleven years. South Bend, with an excellent record of no death for eight years, recorded one among nonresidents in 1944.

TABLE 4.—*Death Rates of Nineteen Cities in East North Central States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Fort Wayne	0.0	0.0	0.0	2.1	4.2	12.9	7.3	....	....
Canton	0.0	0.0	0.4†	0.8	1.4	3.3	8.9	....	....
Grand Rapids	0.0	0.0	0.5†	0.2	1.0	1.9	9.1	25.5	29.7
Gary	0.0	0.0	1.1	0.8	...	...	...	....	....
Evansville	0.0	0.0	1.2†	1.8	0.2	5.0	17.5	32.0	35.0
Milwaukee	0.0	0.1	0.1	0.2	0.8	1.6	6.5	13.6	27.0
Akron	0.0	0.1*	0.0†	0.9	1.5	2.4	10.6	21.0	27.7#
Youngstown	0.0	0.1*	0.7	1.2	1.1	7.2	19.2	29.5	35.1
South Bend	0.0	0.2*	0.0	0.8	...	...	....	....	....
Cleveland	0.0	0.2	0.6	1.1	1.0	2.0	4.0	10.0	15.7
Flint	0.0	0.2	1.3†	0.8	1.6	4.6	22.7	18.8	46.9
Peoria	0.0	0.0†	1.3†	0.9	0.2	3.7	5.7	16.4	15.7#
Toledo	0.0	1.1	1.0†	1.2	3.0	5.8	10.6	31.4	37.5
Chicago	0.1	0.1	0.3	0.4	0.6	1.4	2.4	8.2	15.8
Detroit	0.1*	0.1	0.4	0.7	1.3	4.1	8.1	15.4	22.8
Indianapolis	0.3*	0.3†	1.2†	1.8	2.7	4.6	10.3	20.5	30.4
Columbus	0.3*	0.4†	1.4†	1.9	2.1	3.5	7.1	15.8	40.0
Cincinnati	0.4†	0.3†	1.1†	1.4	2.5	3.2	3.4	7.8	30.1
Dayton	0.5	0.3†	1.4	0.8	1.9	3.3	9.3	14.8	22.5

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.

However, this city reports no typhoid death among residents for ten years. Fall River and Lynn report no death in nine years, Cambridge no death in eight years.

The New England cities (table 1) (population 2,579,152), which have usually reported the lowest group rate, trailed the East North Central cities (0.07) by a narrow margin (0.08). The lowest group rate thus far attained (0.04) was recorded by the New England cities in 1944 with but one death from typhoid. In 1945 there were but two deaths, one each in Boston and in New Bedford. This marks the first death in the latter city for nine years. The West North Central cities (0.11) are not far behind in the group rate. Twelve of the New England cities (there were eleven in 1942, ten in 1943, thirteen in 1944) report no death from typhoid in 1945 (table 1). Six cities (Cambridge, Fall River, Hartford, Lynn, Somerville, Springfield)

TABLE 5.—*Death Rates of Six Cities in East South Central States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Chattanooga	0.0	0.2	0.9	5.8	8.0	18.6	27.2	35.8#	....
Memphis	0.0	0.3†	4.0†	7.5	9.3	18.9	27.7	42.5	35.3
Louisville	0.0†	0.5†	0.9	2.8	3.7	4.9	9.7	19.7	52.7
Nashville	0.6*	0.5*	3.4†	5.7	18.2	17.8	29.7	40.2	61.2
Knoxville	0.9*	1.2*	3.8	6.0	10.7	20.8	25.3#	....	....
Birmingham	1.9†	0.9†	2.5†	4.1	8.0	10.8	31.5	41.3	41.7

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.

record no death during the quinquennium 1941-1945. Hartford and Springfield report no death for seven years. While in 1940 one half of the eighteen cities recording no deaths from typhoid during a two year period were to be found among the New England cities, in 1945 one fourth (eleven among forty-one) were in this group. This in no manner detracts from the outstanding record of the New England cities; rather does it show the tendency for other cities to attain the high standards set up by this group.

Thirteen of the large Middle Atlantic cities (there were eight in 1941, eleven in 1942, fifteen in 1943, eleven in 1944) report no death from typhoid in 1945 (table 2). The Middle Atlantic cities have a group rate (0.23) which is higher than that of the East North Central, New England, West North Central and Mountain and Pacific cities. It marks the highest rate for these cities since 1941, when it was 0.24. Lower rates were recorded for 1942 (0.15), 1943 (0.08) and 1944 (0.17). In 1943 there were but eleven deaths in these cities (four in New York, four in Philadelphia, three in Pittsburgh). In 1945 these same cities report twenty-six deaths (eleven in New York, twelve in Philadelphia, three in Pittsburgh). Five cities (Albany, Erie, Scranton, Trenton, Yonkers) record no death during the five year period 1941-1945. Yonkers reports no death for seven years, Erie and Scranton none for six

TABLE 6.—*Death Rates of Nine Cities in West North Central States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Duluth	0.0	0.0	0.2	1.0	1.1	1.7	4.4	19.8	45.5
Des Moines	0.0	0.0	1.3	2.5	2.4	2.2	6.4	15.9	23.7
Minneapolis	0.0	0.1	0.2	0.8	0.8	1.9	5.0	10.6	32.1
Kansas City, Mo.	0.0	0.1†	0.9†	1.6	2.8	5.7	10.6	16.2	35.6
Wichita	0.0	0.2	0.4	1.1	1.2	6.3	....	....	....
Kansas City, Kan.	0.0	0.8†	1.0	1.0	1.7	5.0	9.4	31.1	74.3#
St. Louis	0.1	0.2†	0.7	1.6	2.1	3.9	6.5	12.1	14.7
St. Paul	0.3	0.1	0.3	0.7	1.4	3.4	3.1	9.2	12.8
Omaha	0.4	0.1	0.6	0.9	1.3	3.3	5.7	14.9	49.7

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.

TABLE 7.—*Death Rates of Eight Cities in West South Central States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Tulsa	0.0	0.0	0.4	1.1	8.3	16.2#	....	....	....
Oklahoma City	0.0	0.1	2.6	4.3	7.4#	....	....	....	....
El Paso	0.0	2.7	4.5	5.2	9.1	10.8	30.7	42.8	....
Dallas	0.3	0.9†	2.7†	5.1	7.3	11.2	17.2	....	....
San Antonio	0.4	0.3	2.9	4.3	4.6	9.3	23.3	29.5	35.9
Fort Worth	0.6	0.4†	2.1	4.5	5.9	6.1	16.3#	11.9	27.8
Houston	0.8†	1.1	2.3	3.2	4.8	7.6	14.2	38.1	49.5#
New Orleans	1.2*‖	1.4†‖	5.0†	9.6	9.9	11.6	17.5	29.9	35.6

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.
‖ 1943 special census gives rate of 1.1 for 1945 and 1.3 for 1941-1945 for New Orleans.

years. The one death in Paterson (in 1941) occurred among nonresidents. Four cities (Camden, Jersey City, Syracuse, Utica) report that for the five year period one third or more of deaths were among nonresidents. It is stated that seven of the twelve deaths in Philadelphia are attributed to the consumption of pastry prepared in a bakery in which a typhoid carrier was found. This outbreak resulted in 37 of the 68 cases of typhoid reported in Philadelphia in 1945. Camden reports two deaths, one among residents; Newark records two deaths, both among residents.

The rate (0.62) for South Atlantic cities (table 3) (population 2,727,985) is higher than the rate of 1944 (0.22) and that of 1943 (0.29) but slightly lower than that of 1942 (0.70). In these cities there occurred seventeen deaths in 1945, six in 1944, eight in 1943 and nineteen in 1942. Charlotte is the only city on the honor roll for 1945. There were six such cities in 1944 (Atlanta, Jacksonville, Miami, Norfolk, Tampa, Wilmington). Atlanta, Jacksonville, Norfolk and Wilmington were on the honor roll in 1943. Three cities

(Atlanta, Baltimore, Richmond) report that one third or more of deaths were among nonresidents (one of three in Atlanta, one of two in Baltimore, three of four in Richmond). While no city in this group records no death during the quinquennium 1941-1945, it is stated that the single death in Wilmington (in 1945) occurred in a nonresident. Also for this five year period five cities (Atlanta, Baltimore, Charlotte, Richmond, Washington) report that one third or more of deaths were among nonresidents. Baltimore reports only 11 cases of typhoid for 1945, the smallest number in the history of that city. Charlotte has been included in the group for the fourth time; however, for purposes of adequate comparison the figures for this city have been omitted in calculating rates for the group as a whole.

The East North Central cities (population 9,386,378) have regained first place, which rank they held in 1941

TABLE 8.—*Death Rates from Typhoid in 1945*

Honor Roll: No Typhoid Deaths (Fifty-Eight Cities)#

Akron	Grand Rapids	Rochester
Albany	Hartford	Salt Lake City
Bridgeport	Jersey City	San Diego
Buffalo	Kansas City, Kan.	Scranton
Canton	Kansas City, Mo.	Somerville
Cambridge	Long Beach	South Bend
Charlotte	Lowell	Spokane
Chattanooga	Lynn	Springfield
Cleveland	Memphis	Syracuse
Denver	Milwaukee	Tacoma
Des Moines	Minneapolis	Toledo
Duluth	New Haven	Trenton
Elizabeth	Oakland	Tulsa
El Paso	Oklahoma City	Utica
Erie	Paterson	Waterbury
Evansville	Peoria	Wichita
Fall River	Portland	Worcester
Flint	Providence	Yonkers
Fort Wayne	Reading	Youngstown
Gary		

First Rank: From 0.1 to 1.9 Deaths per Hundred Thousand (Thirty-Seven Cities)¶

Boston	0.1	Washington	0.3	Philadelphia	0.6
Chicago	0.1	Cincinnati	0.4†	Norfolk	0.7
Detroit	0.1*	Omaha	0.4	Houston	0.8†
New York	0.1	Pittsburgh	0.4	Knoxville	0.9*
St. Louis	0.1	San Antonio	0.4	New Bedford	0.9
Baltimore	0.2†	Dayton	0.5	Sacramento	0.9
San Francisco	0.2*	Newark	0.5	Wilmington	0.9*
Columbus	0.3*	Fort Worth	0.6	Atlanta	1.0†
Dallas	0.3	Jacksonville	0.6	New Orleans	1.2*
Indianapolis	0.3*	Louisville	0.6†	Camden	1.7†
Los Angeles	0.3	Miami	0.6	Tampa	1.8
Seattle	0.3	Nashville	0.6*	Birmingham	1.9†
St. Paul	0.3				

Second Rank: From 2.0 to 2.1 (One City)

Richmond..... 2.1†

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Fifty-six without Charlotte and Gary.
¶ Thirty-six without Sacramento.

and back in 1938. Thirteen (twelve exclusive of Gary) of the cities in this group (Akron, Canton, Cleveland, Evansville, Flint, Fort Wayne, Gary, Grand Rapids, Milwaukee, Peoria, South Bend, Toledo, Youngstown) report no death from typhoid in 1945 (table 4). Cleveland is a newcomer to the honor roll. Gary was added to this group in 1940, but figures for this city have been omitted in determining rates for the group as a whole. In the East North Central cities there occurred seven deaths in 1945 (rate 0.07), thirteen in 1944 (rate 0.14), twenty-four in 1943 (rate 0.26) and thirteen in 1942 (rate 0.14). Five cities (Canton, Evansville, Fort Wayne, Gary, Grand Rapids) record no death during the five year period 1941-1945. Canton and Grand Rapids report no death for six years. It is stated that the single death in Akron (in 1944), in South Bend (in 1944) and in Youngstown (in 1941) occurred among nonresidents. Five cities (Cincinnati, Columbus, Dayton, Indianapolis, Peoria) report that for the five year period one third or more of deaths were among nonresidents. Detroit recorded no death among residents in 1942, again in 1945. The increase in deaths in this group of cities in 1943 was due primarily to a high incidence of the disease in Toledo, thirteen of the

TABLE 9.—*Death Rates of Twelve Cities in Mountain and Pacific States from Typhoid per Hundred Thousand of Population*

	1945	1941-1945	1936-1940	1931-1935	1926-1930	1921-1925	1916-1920	1911-1915	1906-1910
Salt Lake City	0.0	0.1*	0.3*	0.7	1.9	6.0	9.3	13.3	41.1
Portland	0.0	0.1*	0.3	0.8	2.3	3.5	4.5	10.8	23.2
Long Beach	0.0	0.1	0.5	0.5	1.1	2.1#	...	....	....
Oakland	0.0	0.2	0.5†	1.2	1.2	2.0	3.8	8.7	21.5
San Diego	0.0	0.2†‖	0.8	1.3	1.0	1.6	7.9	17.0	10.8
Denver	0.0	0.3†	1.4	1.7	2.6	5.1	5.8	12.0	37.5
Tacoma	0.0	0.5†	0.5	0.9	1.8	3.7	2.9	10.4	19.0
Spokane	0.0	0.6†	1.2	1.0	2.2	4.4	4.9	17.1	50.3
San Francisco	0.2*¶	0.1†	0.4	0.8	2.0	2.8	4.6	13.6	26.3
Seattle	0.3	0.1	0.2	0.7	2.2	2.6	2.9	5.7	25.2
Los Angeles	0.3	0.3	0.7†	0.8	1.5	3.0	3.6	10.7	19.0
Sacramento	0.9	0.4†	1.5*	6.3	...	...	...	....	....

* All typhoid deaths were stated to be in nonresidents.
† One third or more of the reported typhoid deaths were stated to be in nonresidents.
# Incomplete data.
‖ 1944 special census gives rate of 0.1 for 1941-1945 for San Diego.
¶ 1945 special census gives rate of 0.1 for 1945 for San Francisco.

twenty-four deaths occurring there. It is stated that practically all the cases were traced either to one carrier, a food handler, or to cases resulting from contact with that one carrier. Chicago reports but a single death for each of the three years 1943-1945. Cincinnati records two deaths in 1945 (one among residents), none in 1944 and three in 1943 (all among nonresidents). Detroit reports one among nonresidents in 1945, three in 1944 (one among nonresidents) and two in 1943 (both among residents).

The six cities (table 5) in the East South Central group (population 1,286,747) show a definite increase in the death rate (0.70 in 1945, 0.31 in 1944, 0.62 in

TABLE 10.—*Forty-One Cities with No Typhoid Deaths in 1944 and 1945* #

Albany 5	Hartford 7	San Diego 3
Bridgeport 4	Jersey City 3	Scranton 6
Canton 6	Kansas City, Kan.	Somerville 5
Cambridge 8	Long Beach	Springfield 7
Chattanooga 4	Lowell	Toledo
Denver	Lynn 9	Trenton 5
Des Moines 6	Milwaukee	Tulsa 6
Duluth 7	Minneapolis 4	Utica 3
Erie 6	New Haven	Waterbury
Evansville 5	Oakland	Wichita 3
Fall River 9	Paterson 4	Worcester 4
Fort Wayne 11	Peoria	Yonkers 7
Gary 5	Reading 4	Youngstown 4
Grand Rapids 6	Salt Lake City 4	

11 No typhoid deaths in eleven years.
9 No typhoid deaths in nine years.
8 No typhoid deaths in eight years.
7 No typhoid deaths in seven years.
6 No typhoid deaths in six years.
5 No typhoid deaths in five years.
4 No typhoid deaths in four years.
3 No typhoid deaths in three years.
Forty without Gary.

1943, 0.54 in 1942). This group has the highest rate for 1945, the West South Central cities being next (0.59). The effect of hospitalizing cases from surrounding rural areas remains evident. Of nine deaths in 1945, seven were among nonresidents (three of four deaths in 1944, five of eight in 1943, six of seven in 1942). Two cities (Chattanooga and Memphis) report no deaths among either residents or nonresidents and appear on the honor roll. The one death each in Knoxville and Nashville were stated to be among nonresi-

dents. Of the two deaths among residents in this group of cities, one each occurred in Birmingham and Louisville. While no city in this group reports no death during the five year period 1941-1945, it is stated that the seven deaths in Knoxville and the four deaths in Nashville occurred among nonresidents. Also for this

TABLE 11.—*Number of Cities with Various Typhoid Death Rates*

	No. of Cities	10.0 and Over	5.0 to 9.9	2.0 to 4.9	1.0 to 1.9	0.1 to 0.9	0.0
1906-1910	77	75	2	0	0	0	0
1911-1915	79	58	19	2	0	0	0
1916-1920	84	22	32	30	0	0	0
1921-1925	89	12	17	48	12	0	0
1926-1930	92	3	10	30	37	12	0
1931-1935	93	0	6	17	28	42	0
1930	93	2	6	30	23	22	10
1931	93	2	6	23	28	22	12
1932	93	1	7	13	29	29	14
1933	93	0	7	18	19	33	16
1934	93	0	9	11	27	23	23
1935	93	0	7	15	18	29	24
1936	93	0	3	15	21	36	18
1937	93	0	1	13	26	26	27
1938	93	0	3	13	14	34	29
1939	93	0	3	7	17	32	34
1940*	93	0	0	12	12	30	39
1941*	93	0	0	4	7	46	36
1942*	93	0	1	3	5	34	50
1945*	93	0	0	1	5	31	56

* Charlotte, Gary and Sacramento omitted.

quinquennium three cities (Birmingham, Louisville, Memphis) report that one third or more of deaths were among nonresidents. For 1945 there are recorded five deaths in Birmingham (four among nonresidents), two in Louisville (one among nonresidents).

The West North Central cities (population 2,716,484) maintain their consistently low rate (0.11 for each of the past three years, 1943-1945). The death rate declined from 0.29 in 1941 to 0.18 in 1942 and to 0.11 in 1943, where it has remained. In each of the last three years there have occurred three deaths. Six cities (Des Moines, Duluth, Kansas City, Kan., Kansas City, Mo., Minneapolis, Wichita) record no death in 1945. There were seven such cities in 1944, seven in 1943 and five in 1942. Three cities (Omaha, St. Louis, St. Paul) report one death each in 1945, all among residents. Two cities (Des Moines, Duluth) record no death during the five year period 1941-1945. Three cities (Kansas City, Kan., Kansas City, Mo., St. Louis) report that for the quinquennium one third or more of deaths were among nonresidents. Duluth reports no death for seven years, Des Moines none for six years.

TABLE 12.—*Total Typhoid Death Rate per Hundred Thousand of Population for Ninety-Three Cities According to Geographic Divisions*

	Population*	Typhoid Deaths			Typhoid Death Rates			
		1945	1944	1943	1945	1941-1945	1936-1940	1931-1935
New England	2,579,152	2	1	6	0.08	0.14	0.39	0.70
Middle Atlantic	13,129,185	30	22	11	0.23	0.17	0.43	0.80
South Atlantic	2,727,985	17	6	8	0.62	0.54	1.14	2.70
East North Central	9,386,378	7	13	24	0.07	0.16	0.53	0.75
East South Central	1,286,747	9	4	8	0.70	0.57	2.54	4.81
West North Central	2,716,484	3	3	3	0.11	0.16	0.60	1.24
West South Central	2,048,692	12	19	17	0.59	0.89	3.09	5.36
Mountain and Pacific	4,186,039	7	5	8	0.17	0.23	0.60	0.88

* 1940 census figures used.

The eight cities of the West South Central group (table 7) (population 2,048,692) report a continued reduction in the rate and establish a new low rate of 0.59 for the group. In these cities there occurred twelve deaths in 1945, nineteen in 1944 (rate 0.93), seventeen in 1943 (rate 0.83) and fifteen in 1942 (rate 0.73). Of the twelve deaths in this group of cities in 1945, eight were among nonresidents (eight of nineteen in 1944, eight of seventeen in 1943, six of fifteen in 1942). Tulsa reports no death during the past six years. Four cities (Dallas, El Paso, Fort Worth, New Orleans) report that for the five year period 1941-1945 one third or more of deaths were among nonresidents. Three cities (El Paso, Oklahoma City, Tulsa) record no death in 1945 and New Orleans reports six deaths, all among nonresidents. Houston reports three deaths, two among nonresidents.

The eleven cities (excluding Sacramento) in the Mountain and Pacific states (table 9) (population

TABLE 13.—*Total Typhoid Rate for Seventy-Eight Cities, 1910-1945* and for Ninety-Three Cities, 1935-1945*

	Population	Typhoid Deaths	Typhoid Death Rate per 100,000
1910	22,573,435	4,637	20.54
1911	23,211,341	3,950	17.02
1912	23,835,389	3,132	13.14
1913	24,457,989	3,285	13.43
1914	25,091,112	2,781	11.08
1915	25,713,346	2,434	9.47
1916	26,257,550	2,191	8.34
1917	26,865,408	2,016	7.50
1918	27,086,696†	1,824†	6.73
1919	27,735,083†	1,151†	4.15
1920	28,244,878	1,088	3.85
1921	28,859,002	1,141	3.95
1922	29,473,246	963	3.26
1923	30,087,430	950	3.16
1924	30,701,614	943	3.07
1925	31,315,508	1,079	3.44
1926	31,929,782	907	2.84
1927	32,543,566	648	1.99
1928	33,158,150	628	1.89
1929	33,772,334	537	1.59
1930	34,410,235	554	1.61
1931	34,508,750	563	1.63
1932	34,607,505	442	1.28
1933	34,708,945	423	1.22
1934	34,833,650	413	1.19
1935	35,005,351	348	0.99
1936	35,196,325	337	0.96
1937	35,386,380	289	0.82
1938	35,578,011	257	0.72
1939	35,767,022	232	0.65
1940	35,895,638	172	0.48
1941	35,895,638††	123	0.34
1942	35,895,638††	83	0.23
1943	35,895,638††	78	0.22
1944	35,895,638††	66	0.18
1945	35,895,638††	80	0.22
Rates for Ninety-Three Cities			
1935	37,025,179	385	1.04
1936	37,241,414	366	0.98
1937	37,459,339	324	0.86
1938	37,680,155	298	0.79
1939	37,900,354	250	0.66
1940	38,060,672	190	0.50
1941	38,060,662††	141	0.37
1942	38,060,662††	95	0.25
1943	38,060,662††	85	0.22
1944	38,060,662††	73	0.19
1945	38,060,662††	87	0.23

* The following fifteen cities are omitted from this table because data for the full period are not available: Canton, Chattanooga, Dallas, Fort Wayne, Jacksonville, Knoxville, Long Beach, Miami, Oklahoma City, South Bend, Tampa, Tulsa, Utica, Wichita, Wilmington.

† Data for Fort Worth lacking.

†† 1940 census figures used.

4,186,039) report a decrease from sixteen deaths in 1941 (rate 0.38) to thirteen in 1942 (rate 0.31), to eight in 1943 (rate 0.19), and to five in 1944 (rate 0.12) and an increase to seven in 1945 (rate 0.17). This group stands in fourth place in 1945. Sacramento has again been omitted in calculating the total number of deaths and rates. This city reports one death among residents in 1945 (no death in 1942, 1943 and 1944). While no city in this group records no death during the quinquennium 1941-1945, it is stated that the single death in Portland (in 1944) and the single death in Salt Lake City (in 1941) occurred among nonresidents. Also for this five year period six cities (Denver, Sacramento, San Diego, San Francisco, Spokane, Tacoma) report that

one third or more of deaths were among nonresidents. Eight of the Mountain and Pacific cities (Denver, Long Beach, Oakland, Portland, Salt Lake City, San Diego, Spokane, Tacoma) report no death from typhoid in 1945. There were nine such cities in 1944, seven in 1943 and seven in 1942. It is stated that the one death in San Francisco in 1945 was among nonresidents. Los Angeles records five deaths, all among residents.

THE HONOR ROLL

The number of cities with no death from typhoid has increased from fifty in 1942 to fifty-six in 1945. Two of the three cities (Charlotte, Gary) not included in the ninety-three (table 11) also report no death. When corrected for residents there remain no cities with rates of 2.0 or more. There were four deaths, three among nonresidents in Richmond, giving on the basis of the 1940 census a rate of 2.1. Using the 1943 special census, the rate for this city becomes 1.8. The charge of nonresident deaths continues to account in part for the remaining high rates, especially in the Southern cities. The number of cities with rates of less than 1.0 has increased by three (eighty-seven in 1945, eighty-four in 1942). Forty cities (forty-one with Gary) record no typhoid death in 1944 and 1945 (table 10). It is again emphasized that several other cities in the first rank would appear in the honor roll were they not charged with deaths among nonresidents.

For the seventy-eight cities (table 13) for which data are available since 1910 there occurred eighty deaths from typhoid in 1945 (sixty-six in 1944 and seventy-eight in 1943). The lowest number is that for 1944, with a rate of 0.18 per hundred thousand of population. For the ninety-three cities the number of deaths in 1945 is eighty-seven (seventy-three in 1944 and eighty-five in 1943).

Table 12 shows the number of deaths for each of the past three years in each group of cities. It also shows the rates for 1945 and the quinquennium 1941-1945 and the two preceding five year periods. For 1941-1945 the rate for the New England cities (0.14) marks a distinctly new record and is followed by the East North Central and West North Central cities (0.16) and the Middle Atlantic cities (0.17). The reduction in rates for all groups by five year periods is most impressive. For 1945 the health officers report no special outbreaks of typhoid. Improvement has been general throughout the country, and the war years do not appear to have contributed materially to the typhoid problem in our large cities.

Development of a Parathyroid Cyst.—It is hard to give an adequate explanation of why cysts should develop in the parathyroids or why (certainly large ones) are of such extreme rarity. As stated, it is not infrequent for presumably normal parathyroids to have some follicles containing colloid somewhat similar in appearance to that in the thyroid glands. It is conceivable that one of these follicles might become greatly distended, resulting in the cystic parathyroid. The embryological development of the parathyroids is worthy of serious thought as a possible explanation of the cause of this cyst. The superior parathyroids develop as solid outgrowths from the dorsolateral walls of the fourth pharyngeal pouches, and the inferior parathyroids develop as solid outgrowths from the rostral walls of the third pharyngeal pouches. It may be that infrequently one or the other of these solid outgrowths might carry along an extension of the lumen of the pharyngeal pouch. This pouch then might continue to accumulate fluid and so cause a cyst to develop.—McKnight, Roy B.: Parathyroid Cyst, in Studies in Science, edited by W. C. Coker, Chapel Hill, University of North Carolina Press, 1946.

Clinical Notes, Suggestions and New Instruments

KLEBSIELLA PNEUMONIA TREATED WITH STREPTOMYCIN

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A small percentage of pneumonias have as their etiologic agent Klebsiella pneumoniae, an organism belonging to the Friedländer group. Bullowa [1] reports this organism as the causative agent in 1.1 per cent of 4,416 cases of pneumonia. Julianelle [2] reports an incidence of about 1 per cent. Pneumonia caused by Klebsiella pneumoniae carries with it a mortality rate reported to be between 71 and 97 per cent.[1]

This case is reported because of the usual high mortality rate, the striking results obtained with the administration of streptomycin, and because, in the literature, there had been no case reported in which streptomycin had been used in the treatment of Klebsiella pneumonia.[3]

Streptomycin was described in January 1944 by Schatz, Bugie and Waksman.[4] This antibiotic is characterized by its bacteriostatic activity against certain gram positive and gram negative organisms. Heilman [5] reported in vivo and in vitro experiments on the effects of streptomycin on the Friedländer group and concluded that it may be useful in the treatment of infections caused by this organism.

REPORT OF CASE

A white woman aged 59 was admitted to Memorial Hospital July 7, 1945 with cough, chills, and fever of two days' duration. Physical examination revealed consolidation of the left lower lobe. X-ray of the chest showed pneumonia of the left base.

Laboratory examination revealed 4,700,000 red blood cells and 14,200 white blood cells. The differential count was 68 per cent segmented neutrophils, 12 per cent nonsegmented neutrophils, 14 per cent lymphocytes, 2 per cent monocytes and 4 per cent eosinophils.

The urine showed normal findings.

The patient was given sulfadiazine, the initial dose being 3 Gm. and then 1 Gm. every four hours. The sputum culture July 9 gave a profuse growth of Friedländer's bacillus. The course of the disease apparently was not influenced by sulfadiazine. Her temperature ranged from 101 to 103 F. X-ray showed extension of the pneumonic process to the right lung.

July 9 she was given penicillin intramuscularly, 25,000 units every three hours. Sputum culture, repeated July 12, showed again a profuse growth of Friedländer's bacillus. She continued very ill, with dyspnea and wheezing, the asthmatic type of breathing. Sputum culture July 15 again produced a profuse growth of Friedländer's bacillus.

After reading Heilman's favorable report on experimental Klebsiella infections we were able to procure several million units of streptomycin from Merck & Co., Rahway, N. J., July 19. In 10 cc. of distilled water 500,000 units was injected into the gluteal muscles. Four hours later another 500,000 units was given intramuscularly. A severe reaction, consisting of pain in the chest, dyspnea, headache and profuse perspiration,

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From the South Bend Clinic.

1. Perlman, Ely, and Bullowa, J. G. M.: Primary Bacillus Friedländer (Klebsiella Pneumoniae) Pneumonia, Arch. Int. Med. **67**: 907 (May) 1941.

2. Julianelle, L. A.: The Pneumonia of Friedländer's Bacillus, Ann. Int. Med. **15**: 190 (Aug.) 1941.

3. Since it was used in this case, streptomycin has been used in 2 cases of Klebsiella pneumonia at the Mayo Clinic (Herrell, W. E., and Nichols, D. R.: The Clinical Use of Streptomycin: A Study of 45 Cases, Proc. Staff Meet., Mayo Clin. **20**: 449 [Nov. 28] 1945).

4. Schatz, A.; Bugie, E., and Waksman, S. A.: Streptomycin: Substance Exhibiting Antibiotic Activity Against Gram Positive and Gram Negative Bacteria, Proc. Soc. Exper. Biol. & Med. **55**: 66 (Jan.) 1944.

5. Heilman, F. R.: Streptomycin in the Treatment of Experimental Infections with Micro-Organisms of the Friedländer Group (Klebsiella), Proc. Staff Meet., Mayo Clin. **20**: 33 (Feb. 7) 1945.

followed the second injection. Because of this reaction it was decided to discontinue the streptomycin. The patient had received a total of 1 million units.

During the night of July 19 the patient coughed up copious sputum, which previously had been very tenacious and difficult to raise. When seen on the morning of July 20 she appeared decidedly improved. Her temperature had dropped from 102.8 to 99.6 F., ranged from 98.6 to 99.6 for another eight days and then dropped to normal, where it remained for the rest of her stay in the hospital.

X-ray of the chest taken Aug. 8, 1945 showed complete resolution of the pneumonia.

122 North Lafayette Boulevard.

ALLERGY TO INSULIN ASSOCIATED WITH INFECTION

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Boston

The occurrence of generalized urticarial reactions following the administration of insulin to diabetic patients has occasionally been observed in patients who, having once taken insulin, had then stopped it for a considerable period and subsequently were forced to resume insulin. In such patients it has been noted that at times insulin resistance has been present together with the sensitivity to insulin, and in a number of instances the association of infection at the time of the urticarial reaction has raised the question whether infection itself in some way stimulated the allergic response so that antibodies to insulin occurred.

A housewife aged 44 at the onset of diabetes in January 1933 first received insulin in June 1933. She gave up insulin subsequent to her hospital treatment and had not taken insulin for a considerable time when, about July 20, 1943, she developed an infection about a callus on one toe. On August 1 the urine was sugar free according to her doctor. The next day, however, the urine showed an orange test. She began insulin, taking 10 units three times a day. She promptly showed a generalized urticarial reaction, which reaction occurred when the insulin of three different manufacturers was used. She entered the Deaconess Hospital August 5 because of gangrene of the foot, fever and resistance to insulin. Her blood carbon dioxide was 37 volumes per cent and the blood sugar was 303 mg. The urine contained 2.4 per cent of sugar and 3 plus diacetic acid. During the next four days the urine continued to show sugar such that in twenty-four hours, on August 8, 153 Gm. of sugar was excreted in the urine and on the morning of August 9 the carbon dioxide of the blood was 28 in spite of the fact that she had received on the preceding day 120 units of insulin. During this time generalized large urticarial reactions continued. On August 10 a right thigh amputation was done. On that day she received a total of 250 units of insulin. Almost immediately following the amputation of the infected foot the diacetic acid disappeared and the urticarial reactions ceased. A rapid reduction in insulin requirement occurred so that the urine was sugar free on August 13 and continued so up to the time of discharge on August 29. The blood sugar values came down to normal by August 18. She left the hospital with a blood sugar of 92 mg., taking 16 units of protamine zinc insulin once a day.

Through the courtesy of Dr. Jacob Lerman of the Massachusetts General Hospital studies of her blood showed no excessive insulin precipitins, but a strongly positive test for antibodies by the passive transfer method was present. A subsequent examination on August 14, at the time the infected leg had been removed and the insulin resistance was disappearing, again showed no precipitans but a much less positive transfer test.

This seems to support the idea that the presence of acute infection had much to do with insulin resistance and the intensification of the allergy to insulin.

81 Bay State Road.

From the New England Deaconess Hospital.

A CASE OF POLIOMYELITIS WITH RESPIRATORY PARALYSIS IN RUMANIA

LIEUTENANT COLONEL R. T. SHACKELFORD
Medical Corps, Army of the United States

The patient under discussion was kept alive for fifty-two days by manual artificial respiration, which as far as I know is a record, as well as a tribute to the courage and resourcefulness of the physician, the patient and her family, all Rumanians and having their first contact with poliomyelitis. Furthermore no literature or other physicians experienced in this malady were available for assistance, as poliomyelitis has not been common in Rumania.

The report also will illustrate some of the difficulties the uninitiated may have in introducing and caring for a totally paralyzed patient in an "iron lung," and the improvements made by trial and error to overcome those difficulties until success was obtained. Likewise a modification will be suggested for future models of artificial respirators.

S. N., a schoolgirl aged 17 years, was taken ill on Sept. 10, 1945. The onset was sudden, with headache, vomiting and a temperature of 99.5 F. (37.5 C.). The vomiting persisted for two days and was severe enough to cause the abdomen to be suspected as the site of the disease.

On September 12 the neck became rigid, the temperature rose to 102.2 F. (39 C.) and the patient became stuporous. The spleen was palpable that day. Vomiting ceased.

Blood examination showed 13,000 leukocytes, with polymorphonuclears 80 per cent, eosinophils 1 per cent, basophils 0, monocytes 3 per cent, lymphocytes 16 per cent, myeloblasts 0.

A lumbar puncture was done. The pressure of the spinal fluid was not measured but its examination showed the fluid turbid, cell count 960 per cubic centimeter, glucose 87 (normal 48-60), albumin 50 (normal 20-22), Pandy test positive, Weichbrodt test positive, bacteria absent.

September 13 the patient became completely paralyzed except for the muscles of the face, tongue and eyes. All muscles of respiration, all four extremities, the abdomen and the neck were paralyzed. There was some dysphagia. Urination and defecation remained under control. Manual artificial respiration was begun that day by the patient's uncle, who is a physician, and six domestic servants were trained to carry on this procedure and did so continuously until the arrival of the "iron lung" fifty-two days later.

September 17 a cisternal puncture was made and the spinal fluid examined. The pressure was not measured. The fluid was slightly turbid. The cell count revealed 42 per cubic centimeter, polymorphonuclears 3 per cent, lymphocytes 97 per cent, Pandy test negative, Weichbrodt test negative, glucose 89, albumin 15.

On September 19 another lumbar puncture was performed. The fluid pressure was not measured. The fluid was clear. The cell count was 8, polymorphoneutrophils numbered 52 per cent, lymphocytes 48 per cent. The Pandy test, Weichbrodt test, glucose and albumin were normal.

The fever persisted for twelve days, reaching a maximum of 102.5 F. (39.2 C.). At the end of that time the temperature returned to normal and has remained normal ever since.

The patient remembers nothing of the first three weeks of her illness but despite a stupor always responded to various stimuli.

The severe headaches disappeared after three weeks, but headaches have recurred from time to time and usually have been associated with poor oxygenation due to inadequate artificial respiration. It is interesting to note that, now she has become used to the increased aeration of the "iron lung," her tolerance for manual artificial respiration has decreased and she complains of lack of sufficient air when out of the "lung."

On November 3 she was placed in the mechanical artificial respirator after difficulties described in another paragraph.

On December 5 she complained of severe pain in her left flank and groin and was nauseated. An examination of the

urine showed many red blood cells. A diagnosis of urinary calculus on the left side was made, codeine was given to relieve pain, and her fluid intake increased to a minimum of 2,000 cc. in twenty-four hours. After thirty hours this pain disappeared and has not recurred.

On November 24 it was noted that she had slight but perceptible motion of the diaphragm. Daily she was encouraged to try a breath unaided. At first one minute was the limit of her endurance, but this has gradually increased to about three minutes at the present date (Jan. 29, 1946). She takes such exercise every four hours.

On November 28 slight motion returned to the toes of both feet, later to the fingers of the left hand, then the left shoulder, the abdominal muscles, the right shoulder, the neck muscles and lastly the fingers of the right hand. These movements are barely perceptible but are unmistakably present and a source of great encouragement to the patient. It is interesting to note that she usually predicts one or two days in advance of the return of motion of a muscle, as she states she has great pain in that area just before motion recurs.

On December 28 she was transferred to a new Standard Emerson artificial respirator sent to the Rumanian Red Cross by former Rumanians living in America.

At present she remains in the respirator constantly except for one hour a day, during which she is bathed and completes her toilet. During this time manual artificial respiration is given.

Positive pressure is not used in the machine. At first a negative pressure of 20 cm. of water was required, but this has gradually been reduced until now 12 to 13 cm. of water is sufficient. Every four hours she practices breathing unassisted, in which her ability has gradually increased to three minutes. She eats, drinks, talks and reads in the machine. Her general condition, nutrition and morale have remained excellent, thanks to the splendid and extraordinarily intelligent care given her by her mother, sister, father, nurse and uncle.

Her prognosis is not known to me. I am a surgeon and am entirely unacquainted with such cases, nor is any literature on the subject available in this politically disturbed country.

The case was called to my attention on Oct. 22, 1945, two days after my arrival in Bucharest, and I visited the patient the following day at her house. It was an astonishing picture of a patient lying on a bed and being kept alive by having her arms extended above her head, thus expanding her thorax seventeen times a minute day and night by three teams of two attendants, each relieving one another in three hour shifts. Except for her paralysis her general condition was good and morale excellent. The skin about her wrists was beginning to break down from the constant friction of the attendant's grasp, and it seemed imperative to find some relief, such as a mechanical respirator.

Brig. Gen. C. V. R. Schuyler, chief of the U. S. Military Representation in Rumania, was notified of the situation and immediately sent cables to the various United States Army headquarters in Europe, as well as to Washington, requesting an "iron lung" and offering to provide air transportation for it. A "lung" manufactured by an army ordnance department in Italy for the use of an American soldier with the same affliction there was located and dispatched by airplane to Bucharest, arriving on October 26. Since neither Sgt. Charles Kaiser of Crawford, N. J., the mechanic stationed with the American forces in Bucharest, nor I had ever had any experience with an artificial respirator and there were no directions or illustrations, it took two days of experimenting on each other and on the patient's sister to assemble the machine and properly adjust the collar and pressure. When we attempted to transfer the patient into the machine the length of time necessary to complete the maneuver, adjust the collar and close the machine required two minutes, which was longer than she could tolerate without artificial respiration. This was a serious obstacle but was solved by Sergeant Kaiser ingeniously in the following manner:

The head board of the respirator was a solid piece of board with an oval opening permitting the head to pass to the outside while the body remained within the machine, this opening being fitted snugly around the neck by a rubber elastic collar. By cutting this headboard horizontally into an upper and lower section, using a tongue and groove beveled articulation between the two to prevent the escape of air, the upper section could be left off, permitting the arms to be rhythmically extended above the head for artificial respiration while the time consuming process of fitting the patient comfortably on the bed and arranging the bedclothes and collar was carried out. Then artificial respiration was stopped, the hands were placed by the side, the upper section snapped into place and the machine closed, a matter of twelve seconds, which was within her limit of tolerance. Without this innovation of Sergeant Kaiser's it would have been impossible to put her into the "lung," as we had no pulmotor or breathing mask available. It would seem a logical improvement in the new standard make of artificial respirator, though it is true that in America cases do not reach such an extreme state without earlier attention, and also there are available insufflation masks and apparatus by which respirations can be given during the tedious adjustments. Also with the Emerson respirator now used here the adjustments are so simple that we can complete the maneuver with ease within twelve seconds, although speed is not necessary now as she can breath unassisted for three minutes.

The case has excited tremendous interest in Rumania and has created much good will for the Americans, because of their gift of the respirator at a time when their optimistic hopes of American assistance have been disappointed.

In addition it has aroused scientific and mechanical interest, as it is the first apparatus of that nature seen in this part of the world, and both Rumanian and Russian doctors have examined it carefully.

In many ways the entire affair has proved to be an investment with profitable returns in international good will and friendship.

Council on Physical Medicine

The Council on Physical Medicine has authorized publication of the following report. HOWARD A. CARTER, *Secretary.*

COSMO INFRA RED LAMP ACCEPTABLE

Manufacturer: Cosmo Sun Ray Products Company, Inc., 401 Lafayette Street, New York 3.

The Cosmo Infra Red Lamp, Model No. 302, is a satisfactory product for the administration of radiant heat therapy. It is well constructed, having a 14 inch round cast iron sturdy base and a standard permitting a maximum height of 5 feet from the edge of the reflector to the floor. The reflector of spun aluminum is 14 inches in diameter, is supported by an aluminum crossarm and may be adjusted to almost any position by two cast aluminum clutches.

Cosmo Infra Red Lamp, Model No. 302

The heating unit is a ring-type resistance burner consisting of nichrome wire embedded in a refractive material. The unit draws 50 watts and may be connected to a 110-120 volt circuit, either alternating or direct current.

The device was used for several months in a department of physical medicine in an approved school of medicine and was found to be entirely satisfactory from the standpoint of practicability.

It is adjustable, light weight and easily carried. It represents a good source of heat of the long infra-red radiation type.

The Council on Physical Medicine voted to accept the Cosmo Infra Red Lamp, Model No. 302, for inclusion in its list of accepted devices.

Council on Pharmacy and Chemistry

REPORT OF THE COUNCIL

Numerous inquiries have been received from physicians concerning the use of "BAL" in the treatment of heavy metal poisoning. Because wartime restrictions on the general dissemination of information about "BAL" have only recently been removed, detailed reports of the results of the investigations have not yet been published. However, this compound is now available in interstate commerce and thus is available for the physician. As a service to the medical profession, the Council on Pharmacy and Chemistry has adopted for publication the following report, based on information supplied by Dr. Harry Eagle and Dr. Warfield T. Longcope of the Subcommittee on Gas Casualties of the National Research Council. More extensive reports by Dr. Eagle, Dr. Longcope and others will appear in the Journal of Venereal Disease Information, *the* Journal of Clinical Investigation *and the* American Journal of Syphilis, Gonorrhea and Venereal Diseases.

AUSTIN SMITH, M.D., *Secretary.*

"BAL" (BRITISH ANTI-LEWISITE) IN THE TREATMENT OF ARSENIC AND MERCURY POISONING

During the war 2,3-Dimercaptopropanol (CH_2-CH-CH_2OH; SH SH) (British Anti-Lewisite, "BAL") was developed as an antidote to the arsenical blister gases. It was intended for the local decontamination and treatment of the skin and eye but was subsequently found to be effective in the systemic treatment of severe arsenic poisoning occurring either after exposure to the arsenical blister gases or as a complication of arsenotherapy.

Of particular interest is the possible use of "BAL" following the administration of arsenicals in the treatment of syphilis. When this statement was prepared, reports of more than 200 cases of various types of arsenical poisoning treated with "BAL" had been received. The results indicate that the danger of complications following the use of arsenicals may be greatly reduced by the early administration of "BAL" in adequate dosage.

"BAL" has also been used in a small series of cases of acute mercury poisoning with promising results. Too few cases have been treated to allow a forthright recommendation regarding optimum dosage of "BAL," but experience appears to indicate that mercury poisoning is more difficult to treat and requires larger doses than does arsenic poisoning. As yet there are no data available on the usefulness of "BAL" in poisoning due to other metals.

Arsenic and mercury combine with and block the function of physiologically essential grouping in the cell, specifically of cellular -SH groups. "BAL," by virtue of being a dithiol, competes with these cell constituents for the heavy metal and, in the case of arsenic, forms a very stable combination, thus permitting the removal of arsenic from the tissues. The excretion of the "BAL"-arsenic combination is very rapid, so that the body is quickly freed of the toxic agent.

"BAL" is unstable in aqueous solution and must be administered intramuscularly in oil solution. The available dosage form is a 10 per cent solution in peanut oil. In animals the maximum tolerated dose varies with the frequency of injection, being 40 mg. per kilogram in rabbits for a single injection and 15 to 20 mg. per kilogram for injections repeated at two hour intervals. Studies in man indicate that 150 to 350 mg. of "BAL" may be given at four hour intervals without signs of severe toxicity. Doses of 300 mg. (5 mg. per kilogram) may produce nausea, vomiting and headache, a burning sensation of the lips, mouth, throat and eyes, sometimes with accompanying lacrimation or salivation and pain in the teeth; generalized muscular aches with burning and tingling of the extremities; and a sense of constriction in the chest, with a feeling of anxiety. The symptoms are usually transitory and disappear in thirty to ninety minutes. The toxicity of "BAL" may be reduced in the presence of arsenic or mercury poisoning.

"BAL" had been used (when this report was prepared) in the treatment of 55 cases of "hemorrhagic encephalitis" caused by intensive arsenotherapy. Forty-four patients recovered completely within one to seven days; the other 11 patients died. In 5 of these 11 cases treatment was delayed for from nine to seventy-two hours after the onset of convulsions or coma. This suggests that if treatment is instituted early the mortality in toxic encephalitis may be reduced to less than 15 per cent.

In 88 cases of arsenical dermatitis, of which 51 were of the exfoliative type, the administration of "BAL" usually stopped the progression of the inflammatory reaction and accelerated the healing process. Twenty per cent of the patients did not respond to treatment. In 10 of 11 cases of arsenical agranulocytosis the administration of "BAL" was followed by an increase in the total white blood cell count and a proportionately greater increase in the number of polymorphonuclear leukocytes. It should be emphasized that "BAL" does not combat the intercurrent infection that is usually present in these cases and massive doses of penicillin should also be given to patients with agranulocytosis.

Although "BAL" has been used successfully in the treatment of "arsenical fever," this complication is usually self limited, making it difficult to assess the degree to which "BAL" contributed to or accelerated recovery. In approximately one third of the cases of postarsenical jaundice in which it was used there was an indication that the administration of "BAL" may have accelerated recovery. The remaining two thirds of the cases seemed unaffected by its administration. In the past, many cases of postarsenical jaundice may have been a form of infectious hepatitis transmitted by faulty needle or syringe technic. "BAL" had no effect on 3 cases of aplastic anemia occurring as a complication of arsenotherapy.

Twenty-five of 26 patients with acute mercury poisoning survived following treatment with "BAL." Eight patients swallowed not more than 0.5 Gm. of mercury bichloride and all recovered within two to three days. Seven patients swallowed 1 Gm. of mercury bichloride and 6 recovered. Ten patients swallowed from 1.5 to approximately 20 Gm. of mercury bichloride; all recovered.

In the treatment of severe cases of arsenic poisoning it has been recommended that 3 mg. per kilogram of "BAL" (10 per cent in oil) be given intramuscularly every four hours for the first two days, four injections on the third day and injections twice daily thereafter for ten days or until complete recovery. In milder cases the dosage per injection may be reduced to 2.5 mg. per kilogram, and only four injections need be given on each of the first two days, two on the third day and a single injection daily for ten days or until complete recovery.

Larger doses of "BAL" appear to be necessary for the treatment of mercury poisoning. The initial dose is usually 5 mg. per kilogram followed in one or two hours by a dose of 2.5 mg. per kilogram. After a lapse of two to four hours a second dose of 2.5 mg. per kilogram should be given, and in patients with severe poisoning a third dose of 2.5 mg. per kilogram should be given within the first twelve hours of therapy. On the second day two 2.5 mg. per kilogram doses may be given, and on the third day one 2.5 mg. per kilogram dose may be administered.

It is emphasized that the successful treatment of arsenic or mercury poisoning with "BAL" depends on the institution of treatment at the earliest possible moment before irreparable tissue damage has occurred and on the use of adequate amounts of "BAL" at frequent intervals. Other supportive measures should always be given in conjunction with "BAL" therapy.

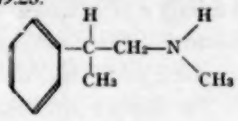
The Council also has considered the recognition of a nonproprietary name for "Bal" which by itself offers no hint of its chemical structure and has concluded that Dimercaprol seems to be appropriately descriptive. The Council urges that those who are interested in "Bal" use Dimercaprol as a nonproprietary synonym.

NEW AND NONOFFICIAL REMEDIES

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

AUSTIN SMITH, M.D., *Secretary.*

VONEDRINE.—Racemic *beta*-phenyl-n-propylmethylamine.—Racemic 1-methylamino-2-phenylpropane.—*Beta*-methylamino cumene.—1-Methylamino-2-methyl-2-phenyl ethane.—The N-monomethyl derivative of *beta*-phenyl-n-propylamine.—$C_{10}H_{15}N$.—M. W. 149.23.



Actions and Uses.—Vonedrine base is volatile and therefore effective by inhalation, serving as a nasal vasoconstrictor. Its use is claimed to produce little or no evidence of irritation, local tissue reactions or central nervous system and cardiovascular stimulation.

Dosage.—In using the Vonedrine Inhaler one long inhalation through each nostril is usually sufficient. This may be repeated as needed, although until more information is available in the entire field of sympathomimetic amine compounds, especially those used locally as nasal vasoconstrictors, the usual care concerning such compounds should be exercised.

Tests and Standards.—

Vonedrine occurs as a colorless to pale yellow liquid which exhibits an initial boiling point of 203 C., with 98 per cent of the sample distilling from 205 to 210 C.

At 25 C. vonedrine exhibits a vapor pressure of less than 1.0 mm., a specific gravity of from 0.915 to 0.925 and a refractive index of 1.507 to 1.511. It is slightly soluble in water (1.2 Gm. per hundred cubic centimeters) but very soluble in ether, ethanol and benzene. Aqueous solutions of vonedrine are alkaline to litmus; the *p*H of a solution of 2 drops (about 0.1 cc.) of vonedrine diluted with 10 cc. of water is about 10.5.

Dissolve 0.5 cc. of vonedrine in 10 cc. of dry benzene and bubble hydrogen chloride, dried by passage over calcium chloride, through the solution until precipitation occurs. Filter and recrystallize the vonedrine hydrochloride from hot benzene. Wash the recrystallized product with dry benzene followed by dry ether, and finally air-dry the crystals by suction: the vonedrine hydrochloride melts at 144-148 C.

Transfer about 0.5 cc. of vonedrine, accurately weighed, to a tared, low form, weighing bottle. Evaporate on a steam bath to constant weight: the nonvolatile matter does not exceed 0.5 per cent.

Dissolve 0.5 cc. of vonedrine in 10 cc. of 10 per cent nitric acid and add 1 cc. of silver nitrate solution. No more chloride is present than appears with a control containing 0.4 cc. of one-hundredth normal hydrochloric acid.

Add 1 drop of vonedrine to 2 cc. of alcohol. Place 1 drop of the resulting solution in a test tube with 1 drop of chloroform and 5 cc. of 10 per cent sodium hydroxide solution; heat gently: no odor of isocyanide is detectable.

Transfer portions of vonedrine (0.5 to 1.0 Gm.), accurately weighed, to a 50 cc. volumetric flask, add neutral 50 per cent aqueous ethanol to the mark and mix. To 10 cc. aliquots of the solution add 20 cc. of tenth-normal sulfuric acid and back-titrate the excess acid with tenth-normal sodium hydroxide, using methyl red as the indicator. Each cubic centimeter of tenth-normal sulfuric acid is equivalent to 0.0149 Gm. of vonedrine: the vonedrine content is not less than 96.0 per cent nor more than 101.0 per cent.

VONEDRINE INHALER:

Transfer the wick of the inhaler to a 500 cc. kjeldahl flask. Rinse the inhaler case with small amounts of ethanol, adding the washings to the flask by means of a small funnel. Add 250 cc. of water and 1.0 Gm. of sodium hydroxide; immediately connect the flask to the ammonia distillation apparatus and boil the contents of the flask to distil the volatile base into 30 cc. of tenth-normal hydrochloric acid. Distil approximately 150 cc. of liquid, rinse condenser with water and titrate the solution in the receiving flask with tenth-normal sodium hydroxide, using methyl red as the indicator. Each cubic centimeter of tenth-normal acid is equivalent to 14.9 mg. of vonedrine: the amount of vonedrine found is not less than 250 mg. per inhaler.

THE WM. S. MERRELL COMPANY, CINCINNATI

Vonedrine Inhaler: Each inhaler contains at the time of manufacture not less than 0.250 Gm. of beta-phenyl-n-propylmethylamine and aromatics.

VINBARBITAL SODIUM (See the Supplement to New and Nonofficial Remedies, 1945, p. 18).

The following additional dosage form has been accepted:

SHARP & DOHME, INC., GLENOLDEN, PA.

Elixir Delvinal Sodium: 473 cc. bottles. Each 30 cc. contains vinbarbital sodium 26 mg. in a palatable elixir containing alcohol 33 per cent.

DYMIXAL.—A mixture of three dyes containing crystal violet, brilliant green and acriflavine. It may be prepared by mechanical mixing of the three dyes in their solid state.

Actions and Uses.—This mixture is proposed for the treatment of burns. It possesses antiseptic action and forms a flexible eschar. It appears to be more advantageous than a single dye in antiseptic effect against gram-positive and gram-negative bacteria.

Dosage.—Dymixal may be applied directly to the wound as a jelly or as a 2.6 per cent aqueous solution. If an oily substance has been used it should be removed before dymixal is applied. Blebs should be excised and loose pieces of skin removed. When the solution is applied, a new application can be made as fast as each one dries, the usual procedure requiring about six applications. The jelly may also be applied in several applications, being spread thinly during each application.

Tests and Standards.—

Dymixal powder is soluble in water, forming a neutral greenish blue solution which shows a yellow fluorescence under ultraviolet light.

The crystal violet used in the mixture meets the standards set forth for methylrosaniline chloride in the U. S. P. XII, page 294. The brilliant green used complies with the standards for brilliant green-N. N. R. The acriflavine used meets the standards set forth for acriflavine in N. F. VII, page 18.

Prepare an adsorption column by tamping dry Celite No. 545 (Johns-Manville) into a glass tube approximately 8 mm. by 350 mm. Pour 5 cc. of an aqueous solution of dymixal containing approximately 0.5 mg. of dymixal onto the dry column and allow it to filter down the column aided by suction. Just before the last bit of liquid disappears from the top of the column add an aqueous solution of acetone (22% V/V) to develop the chromatogram. Bands of crystal violet, brilliant green and acriflavine appear on the column.

Dilute an aqueous solution of dymixal accurately to a concentration of about 0.04 microgram per cubic centimeter of acriflavine. Measure the fluorescence of the solution in a photofluorometer using a solution of acriflavine, N. F. VII, 0.04 microgram per cubic centimeter, as a standard: the amount of acriflavine found corresponds to not less than 19 per cent nor more than 26 per cent.

Determine the quantities of crystal violet and brilliant green in dymixal by measuring the light absorption (E instrumental) of appropriate dilutions in 50% V/V aqueous alcohol at wavelengths of 5,800, 5,900, 6,000, 6,100, 6,200 and 6,300 angstrom units in a spectrophotometer. For comparison, determine the $E\frac{1\%}{1\text{ cm.}}$ values for crystal violet alone and for brilliant green alone, using concentrations similar to those expected in the unknown solution. To calculate the $E\frac{1\%}{1\text{ cm.}}$ values, divide the E instrumental values by the product of the cell thickness and the concentration used in grams per hundred cubic centimeters. Calculate the percentage of brilliant green and crystal violet present in the diluted solution from a set of equations, valid at each wavelength as follows:

$$E \text{ observed for dymixal} = (X \text{ times } E\tfrac{1\%}{1\text{ cm.}} \text{ for crystal violet}) - (Y \text{ times } E\tfrac{1\%}{1\text{ cm.}} \text{ for brilliant green})$$

$100\frac{X}{c}$ equals the percentage of crystal violet and $100\frac{Y}{c}$ represents the percentage of brilliant green, where c equals concentration in grams per hundred cubic centimeters of dymixal measured: by this method, dymixal contains not less than 42 per cent nor more than 48 per cent of crystal violet and not less than 27 per cent nor more than 35 per cent of brilliant green.

Brilliant Green.—Tetraethyldiaminotriphenylcarbinol anhydride sulfate.—$(C_2H_5)_2N.C_6H_4$ C: $C_6H_4N(C_2H_5)_2HSO_4$.—(M. W. 482.52). It occurs as an olive-green crystalline powder, soluble in water (1 Gm. in 20 cc.) and soluble in alcohol (1 Gm. in 20 cc.). Brilliant green may be prepared by oxidation of the condensation product of benzaldehyde and diethylaniline.

A solution of brilliant green in 50 per cent V/V aqueous alcohol possesses a characteristic adsorption curve with a maximum at 6,280 A. Dissolve 0.1 Gm. of brilliant green in 50 cc. of water. To one 10 cc. portion of this solution add a few drops of diluted hydrochloric acid: the color changes from an olive-green to yellow. To another 10 cc. portion add several drops of sodium hydroxide solution: a brown to violet-brown precipitate forms. To another 10 cc. portion add 1 cc. of diluted hydrochloric acid and 1 cc. of barium chloride solution: a white precipitate results.

Dry an accurately weighed portion of brilliant green to constant weight at 110 C.: the loss in weight does not exceed 7.5 per cent. Ignite an accurately weighed specimen of brilliant green to constant weight: the residue is not more than 1 per cent.

Brilliant green meets the requirement limit for lead given under Methylrosanilinae Chloridum, U. S. P. XII.

Dissolve 0.3 Gm. of brilliant green, accurately weighed, in 150 cc. of diluted alcohol and proceed as directed under "Assay," National Formulary VII, page 560: the amount of brilliant green found corresponds to not less than 95.0 per cent nor more than 101 per cent of the dried substance.

MCNEIL LABORATORIES, PHILADELPHIA

Dymixal Powder: 6.5 Gm. and 65 Gm. bottles.

Dymixal Jelly 2%: 56.7 Gm. collapsible tubes. A water soluble jelly containing dymixal 2 per cent, glycerin 5 per cent, methyl cellulose 5 per cent and water.

RIBOFLAVIN (See New and Nonofficial Remedies, 1945, p. 614).

The following additional dosage form has been accepted:

INTERNATIONAL VITAMIN CORPORATION, NEW YORK

Tablets Riboflavin: 2 mg.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 North Dearborn Street - - Chicago 10, Ill.

Cable Address . . . . . "Medic, Chicago"

Subscription price . . . . . Eight dollars per annum in advance

Please send in promptly notice of change of address, giving both old and new; always state whether the change is temporary or permanent. Such notice should mention all journals received from this office. Important information regarding contributions will be found on second advertising page following reading matter.

SATURDAY, JULY 6, 1946

SAFETY ON THE HIGHWAY

During the war accidents in the home outstripped highway accidents, which in turn had outstripped industrial and home accidents in the days before the war. Now that gasoline rationing has been discontinued and motorists are free to drive when and where they wish, the accident toll on the highway has been increasing until it threatens to surpass the big highway accident year 1941. At the present rate highway casualties in 1946 may reach 40,000 deaths and more than 1,300,000 injuries, many of them involving permanent disability.

President Truman called a highway safety conference, which met in Washington May 8, 9 and 10. During the course of the conference working committees held open hearings. With the modifications growing out of these hearings, the reports were presented to the general conference and became the conference report, which is consolidated into a pamphlet entitled Action Program, the President's Highway Safety Conference, 1946.[1]

The conference recognized that conferences cannot solve the traffic casualty problem. Such a solution requires complete public support. The International Association of Chiefs of Police had instituted a nation-wide brake test in 1945 and conducted a safety check of automobiles in 1946. For many years the National Safety Council has awarded plaques to cities with good records in traffic safety. The American Legion and other agencies have stressed the importance of controlling accidents on the highway. Approximately fifty of these national agencies have combined into an organization known as the National Committee for Traffic Safety, of which the American Medical Association is a member agency. To this committee "enlarged and expanded" the President's conference turned over the safety problem. The committee met in Washington on the day following the close of the President's conference.

The American Medical Association devoted one of its National Broadcasting Company network radio programs to the support of the President's conference. On May 18 the Association broadcast an impressive program outlining traffic hazards and their prevention. Guest speaker on this program was Col. Light B. Yost, executive director of the President's Highway Safety Conference.

The medical profession is as mindful of traffic hazards as any civic group. The doctor sees the broken bodies and the anguished minds which are the outcome of motor mishaps. The doctor understands the physical and psychologic lapses which cause bad driving, from which accidents derive. The doctor understands the role of alcohol in the causation of motor vehicle crashes. Physicians will support measures for greater safety on the highway. Through medical publications, through radio broadcasts, through lectures, conferences and contacts with patients, the medical profession collectively and individually can make as great a contribution to the prevention of needless casualties as any other group of citizens.

STREPOGENIN

The development of protein hydrolysates and of amino acid mixtures suitable for clinical use has been one of the most important advances in medicine during the past few years. No doubt these substances will remain indispensable therapeutic agents for a long time. However, indications that the protein hydrolysates and mixtures of the pure amino acid now available may not provide optimal protein nutrition are appearing. This point has been emphasized recently [1] by the Rochester University investigators, who state that oral proteins are better than complete amino acid mixtures or protein hydrolysates for certain clinical purposes. These conclusions obviously raise the question whether there may exist in proteins some other factor than the known amino acids which is important in human nutrition.

In 1941 Woolley and his associates at the Rockefeller Institute reported [2] that some as yet unidentified factor was present in casein and certain other proteins which had a stimulatory effect on the growth of Streptococcus hemolyticus and Lactobacillus casei. The factor was not an amino acid or any known vitamin. The substance was given the name "strepogenin" and has been shown to be probably peptide in nature.[3] It is present in a number of proteins including casein, trypsinogen, insulin and hemoglobin but absent in egg albumin and gelatin. It is destroyed by the acid or alkali hydrolysis of proteins.[3]

1. Available from the President's Highway Safety Conference, Room 7007, Federal Works Agency, Washington, D. C., or from the Superintendent of Documents, Washington, D. C.

1. Madden, S. C.; Bassett, S. H.; Remington, J. H.; Martin, F. J. C.; Woods, R. R., and Shull, F. W.: Surg., Gynec. & Obst. **82**: 131 (Feb.) 1946.

2. Woolley, D. W.: J. Exper. Med. **73**: 487 (April) 1941. Sprince, Herbert, and Woolley, D. W., ibid. **80**: 213 (Sept.) 1944.

3. Sprince, Herbert, and Woolley, D. W.: J. Am. Chem. Soc. **67**: 1734, 1945.

Current studies by the Rockefeller Institute workers [4] indicate that strepogenin is involved in mammalian nutrition, at least in one species—the mouse—as well as in bacterial nutrition. Mice fed hydrolyzed casein supplemented with cystine and tryptophan grew at a slow rate and showed gross evidence of suboptimal nutrition. This observation is in accord with that of other investigators [5] who studied the growth promoting value of pure amino acid mixtures for mice and rats. When small amounts of strepogenin in the form of casein or certain other proteins were added to the diet containing hydrolyzed casein, cystine and tryptophan good growth resulted.[4] On the other hand, the addition to the basal diet of equal amounts of proteins poor in strepogenin, as egg albumin, resulted in no improvement in growth.

Confirmatory observations on rats have just been published [6] from Rose's laboratory, where, it will be recalled, much of the early work on the problem of essential amino acids has been done. The Illinois investigators have found in rats, as in mice, that the feeding of pure amino acid mixtures or hydrolyzed proteins results in suboptimal growth, whereas the administration of the same intact proteins under otherwise identical conditions results in excellent growth.

The practical clinical implications of these experimental studies are obvious. It appears entirely possible that the therapeutic effectiveness of hydrolyzed proteins and of pure amino acid mixtures may be limited by the absence of this new peptide factor. If so, the addition of the factor strepogenin to hydrolyzed proteins and to amino acid mixtures may well be expected to improve their therapeutic value in man as it has been found to do in the experimental animal.

4. Woolley, D. W.: J. Biol. Chem. **162**: 383 (Feb.) 1946.
5. Bauer, C. D., and Berg, C. P.: J. Nutrition **26**: 51 (July) 1943. Albanese, A. A., and Irby, Virginia: Science **98**: 286 (Sept. 24) 1943.
6. Womack, Madelyn, and Rose, W. C.: J. Biol. Chem. **162**: 735 (March) 1946.

USE OF FOWLER'S POSITION IN SURGERY

The use of Fowler's position was based, as is well known, on the fact that fluids run downhill. Opinions as to the value of Fowler's position in the prevention of subphrenic abscess vary from the statement of Hamilton Bailey that "Fowler's position marks the greatest advance in the practice of acute abdominal surgery since Lister's day," to the statement of Wangensteen that "Fowler's position has been superseded by frequent postoperative change of posture." Spalding [1] noted that the suprahepatic spaces differ from the main cavity in respect to the special function of the diaphragmatic lymphatics in the absorption of particulate matter from the peritoneal cavity and in the pressure changes within the spaces during respiration. The diaphragmatic peritoneum is the main route for the removal of particulate matter from the peritoneal cavity. Normally a steady upward flow of intraperitoneal fluid toward and into the subphrenic spaces occurs. This upward flow is determined by the differences of pressure between the general peritoneal cavity and the subphrenic spaces. Overholt [2] demonstrated that the pressures in the subphrenic spaces vary with the intrapleural pressures and not with the intraabdominal pressure. Thus the upward movement of peritoneal fluid obeys the laws of capillary attraction rather than those of gravity. Large effusions will be influenced by gravity to a greater extent, but a proportion of their content is bound to enter the subphrenic spaces regardless of the position of the patient. Spalding points out further that this upward flow of intraperitoneal fluid will be arrested if the continuity of the fluid film is interrupted. This takes place in pneumoperitoneum if the patient sits up and the air passes into the subphrenic spaces. Pneumoperitoneum is always present after laparotomy and in perforated ulcer, the two conditions which are responsible for the majority of subphrenic abscesses. Thaxter [3] has furnished a radiologic demonstration of the upward movement of intraperitoneal fluid in over a fourth of his patients with perforated peptic ulcer, who were filmed standing up. In postoperative peritonitis and in leaking peptic ulcer Fowler's position would seem to facilitate the aspiration of infected fluid from the subhepatic region into the suprahepatic spaces.

Another objection to Fowler's position is that it favors the development of thrombosis because of the pressure of the pillow behind the knees and by the pressure of the soles into the mattress. Fowler's position makes frequent changes in position and active exercise difficult or impossible. Spalding is also inclined to believe that Fowler's position increases the possibilities of postoperative complications in the chest. Postoperative diaphragmatic excursions are somewhat greater in recumbency than in the erect position. The maintenance of Fowler's position entails difficulties for the patient and the nurse and is not conducive either to rest or to mental tranquillity.

Many surgeons believe that the best position for a sick patient is the one in which he is most comfortable. Since any position becomes uncomfortable after a time, the patient will try to move from side to side and onto his back. After a day or two the pneumoperitoneum is absorbed; then it is safe for the patient to sit up if he wishes.

1. Spalding, J. E.: Fowler's Position, Lancet **1**: 643 (May 4) 1946.
2. Overholt, R. H.: Air in the Peritoneal Cavity: Its Effect on the Position and Activity of the Diaphragm, Arch. Surg. **21**: 1282 (Dec.) 1930.
3. Thaxter, L. T.: Spontaneous Pneumoperitoneum in Perforated Peptic Ulcer, Am. J. Roentgenol. **44**: 853 (Dec.) 1940.

Current Comment

CLINICAL ASPECTS OF THE SPECIFIC GRAVITY OF THE BLOOD

In 1684 the English chemist Robert Boyle [1] determined that blood is heavier than water. The studies thus initiated have led to important advances in the treatment of shock. While the same general results have been obtained with different methods, the investigations, physiologic and clinical, by Stebbins and Leake,[2] Polowe [3] and others with the falling drop method of Barbour and Hamilton [4] revealed clearly the importance of changes in the gravity of the blood. This method, notable for accuracy, was used with great success by Scudder and his associates [5] as a guide in the treatment of shock. Rogers [6] is credited with the first clinical use of estimates of blood gravity, which he found valuable in 1913 as a guide to the treatment with fluids of the dehydration in Asiatic cholera. The method Rogers used has been made practicable for the battlefront and other emergencies by Phillips and his associates.[7] "The technic consists in letting drops of plasma or whole blood fall into a graded series of solutions of copper sulfate of known specific gravity, and noting whether the drops rise or fall in the solutions. Each drop on entering the solution becomes encased in a sac of copper proteinate and remains as a discrete drop without change of gravity for fifteen to twenty seconds, during which its rise or fall reveals its gravity relative to that solution." This method is especially suitable for the rapid determination of the blood status. By means of line charts the plasma proteins, hemoglobin and hematocrit reading can be calculated from the plasma and whole blood gravities. The falling drop and the copper sulfate methods make it practicable to determine shifts in the water balance of the blood and other changes and to control effectively the treatment with fluids and otherwise of shock, hemorrhage, burns, anemia, edema and toxemia of pregnancy. The tests of the gravity of the blood are fast coming into general use in the clinical laboratory as well as in the field in emergencies. The greatest usefulness under different conditions of each method and of its eventual modifications will be learned by clinical observation and experience.

1. Boyle, Robert: Memoirs for the Natural History of Human Blood, Especially the Spirit of that Liquor, London, S. Smith, 1684.

2. Stebbins, G. E., and Leake, C. D.: Diurnal Variations in Blood Specific Gravity in Normal Dogs and Humans, Am. J. Physiol. **80:** 639 (May) 1927.

3. Polowe, David: The Specific Gravity of the Blood: Its Clinical Significance, J. Lab. & Clin. Med. **14:** 811 (June) 1929; The Specific Gravity of the Blood in Pregnancy and in the Puerperium, Am. J. Obst. & Gynec. **23:** 843 (June) 1932; The Specific Gravity of the Blood in Human Cancer: 400 Observations, with a Note on Its Clinical Significance ibid. **19:** 983 (June) 1934.

4. Barbour, H. G., and Hamilton, W. F.: The Falling Drop Method for Determining Specific Gravity: Some Clinical Applications, J. A. M. A. **88:** 91 (Jan. 8) 1927.

5. Scudder, John: Shock: Blood Studies as a Guide to Therapy, Philadelphia, J. B. Lippincott Company, 1940. Drew, C. R., Scudder, John, and Papps, Jean: Controlled Fluid Therapy with Hematocrit, Specific Gravity and Plasma Protein Determinations, Surg., Gynec. & Obst. **70:** 859 (May) 1940.

6. Rogers, Leonard: Cholera and Its Treatment, London, Oxford University Press, 1913.

7. Phillips, R. A., and others: Copper Sulfate Method for Measuring Specific Gravity of Whole Blood and Plasma, Bull. U. S. Army M. Dept. No. 71, December 1944, p. 66. This article was revised and amplified in a publication for pathologists in February 1945 from the United States Navy Research Unit at the Hospital of the Rockefeller Institute for Medical Research, New York City.

VITAMIN C IN MILK PRODUCTS

The extensive consumption of milk in this country focuses attention on the way in which it contributes to the dietary. A considerable part of the daily requirement of ascorbic acid is contributed by fresh milk. Thus a quart of this food may contain some 22 mg. of reduced vitamin C, or almost a third of the recommended allowance. The exigencies of commercial handling and processing drastically reduce this value. Recent studies [1] indicate that pasteurized milk from consumers' homes and retail stores averaged 5.8 mg. per liter and that reconstituted evaporated milk from retail stores averaged 2 mg. of total ascorbic acid. Fresh powdered whole milk, after being reconstituted, averaged 12.5 mg. per liter, and the vitamin C in this dried milk was retained after twelve months at room temperature to the extent of 80 per cent of that originally present.

1. Stewart, A. P., Jr., and Sharp, P. F.: J. Nutrition **31:** 161 (Feb.) 1946.

STATISTICS AND MEDICINE

Medical papers based on excellent studies often are presented without adequate analysis or interpretation of the statistical data. Gage [1] emphasizes the need for close cooperation between physicians and statisticians. Especially important, Gage believes, are difficulties of interpretation and errors of calculation in which the time factor is present. The data will be most informative only when analyzed according to units of time. Rates of recurrence following operation or survival rates after diagnosis has been made are meaningless unless related to the time factor. Today every medical investigator needs at least some fundamental information on statistical methodology. When the medical data require expert study in order to produce the most informative and reliable results of which they are capable, the assistance of a professionally trained student of medical statistics is often desirable.

1. Gage, Robert P.: Statistics and Medicine: The Need for Close Cooperation Between the Physician and the Statistician in Medical Statistics, Proc. Staff Meet., Mayo Clin. **21:** 130 (March 20) 1946.

EPILEPSY AND MATERNAL AGE

Some evidence has been advanced that older maternal age is on the average associated with an increased frequency of epileptic and defective children. A recent investigation [1] of this subject was carried out on epileptic patients and their mothers at the Ontario hospitals at Woodstock, Canada, in 1944 and at Orillia, another Canadian institution for the defective. The ages of the mothers of the inmates of these institutions were tabulated and grouped in five year periods. Statistical methods were employed. From the analysis of the data it was deduced that the probability of epilepsy increases with extremely high maternal age and possibly with very low maternal age as well. The correlation is not decisive: the study indicates only that the probability that a birth will prove that of an epileptic child is above normal for women in their late forties. The relationship is similar to that which has been tentatively postulated for mongolism.

1. Beall, Geoffrey, and Stanton, R. G.: The Relationship Between Epilepsy and Maternal Age, Human Biol. **18:** 49 (Feb.) 1946.

MEDICINE AND THE WAR

ARMY

SURGEON GENERAL KIRK OFFERS APPRECIATION TO PHYSICIANS

To all doctors and dentists who served at armed forces induction stations and personnel centers:

As a result of the decrease in activities at armed forces induction stations and personnel centers throughout the United States there has now become less need for assistance from civilian doctors and dentists in the making of physical examinations and the processing of personnel entering and leaving the military service.

To each and every one of you who have given so freely of your time and professional skill may I take this opportunity to express my sincere and most grateful appreciation.

Without your help the job would have been much more difficult and medical officers on active duty would have had to be detailed to these facilities when their services were urgently needed for the care of the sick and wounded as well as training for combat and other types of duty.

Our country is justly proud of the record established by the Medical Department in the recent conflict. I am cognizant of the fact that your help was essential in reaching the final goal. Again I say "thanks" for a job well done.

NORMAN T. KIRK
Major General; The Surgeon General.

MEDICAL NUTRITION LABORATORY COMMENDED

Major Gen. Norman T. Kirk, Surgeon General of the Army, recently awarded the Meritorious Service Unit Plaque to the Medical Nutrition Laboratory, Chicago. Said General Kirk in the citation accompanying the award, "I take great pleasure in awarding the Meritorious Service Plaque to the Medical Nutrition Laboratory, your command, for having complied with the requirements as set forth in circular 54, War Department, 1946, as indicated in basic communication, for superior performance of an exceptionally difficult mission and for untiring devotion to duty of the personnel of this unit during the period from July 1, 1945 to Dec. 31, 1945."

ARMY HOSPITAL NAMED FOR G. I. HERO

The General Regional Hospital, Waltham, Mass., was recently renamed the "Frederick C. Murphy General Hospital" in honor of a Quincy (Mass.) youth who was posthumously awarded the Congressional Medal of Honor for an act of bravery while serving as a private first class with a medical unit in Germany. Designation of the 500 bed army hospital marks the first time that any army general hospital has been named for a soldier from the ranks.

GRADUATE AVIATION PHYSIOLOGISTS

Thirteen medical officers recently graduated as aviation physiologists at the AAF School of Aviation Medicine, Randolph Field, Texas, of which Brig. Gen. Eugen G. Reinartz is commandant.

SURPLUS ARMY HOSPITALS RELEASED TO VETERANS ADMINISTRATION

Major Gen. Norman T. Kirk, Surgeon General of the Army, recently announced that "of the twenty-five hospitals we have earmarked for Veterans Administration at their request, eleven have been transferred complete to the last scalpel." These eleven hospitals comprised 24,000 beds while the Medical Department was operating them.

In addition to giving the Veterans Administration priority on any surplus army hospital installations, the War Department plan also includes placing Medical Corps physicians, surgeons, nurses, technicians, orderlies and dietitians on temporary duty in Veterans Administration hospitals so that the care of the wounded may continue uninterrupted.

The eleven general hospitals which already have been released to the Veterans Administration with all equipment are Ashburn, McKinney, Texas; Foster, Jackson, Miss.; LaGarde, New Orleans; Thayer, Nashville, Tenn.; Winter, Topeka, Kan.; Birmingham, Van Nuys, Calif.; Finney, Thomasville, Ga.; McCloskey, Temple, Texas; McGuire, Richmond, Va.; Nichols, Louisville, Ky., and Vaughan, Hines, Ill.

ARMY AWARDS AND COMMENDATIONS

Lieutenant Frederick A. Brown

Lieut. F. A. Brown, Mount Horeb, Wis., medical officer of the V-12 NROTC unit at Illinois Institute of Technology, Chicago, was recently awarded the Bronze Star "for heroic achievement in connection with operations against the enemy on May 3, 1945 as the medical officer of the United States destroyer during the assault on Okinawa. After several enemy suicide planes attacked the ship and caused severe casualties" Lieutenant Brown, according to the citation accompanying the award, "after the word was passed to abandon ship bravely remained on board and directed the placement of the seriously wounded in life rafts; he did not leave the ship until all the wounded had been transferred. He then continued his medical work and saved the lives of numerous men. His commendable action, achieved under the most difficult conditions, was outstanding. His conduct throughout distinguished him among those performing duties of the same character." Dr. Brown graduated from the University of Illinois College of Medicine, Chicago, in 1943 and entered the service in January 1944.

Major Frederick B. Bang

The Legion of Merit was recently bestowed on Major Frederick B. Bang, Princeton, N. J., "for exceptionally meritorious conduct in the performance of outstanding services in the Southwest Pacific from June 1943 to October 1945. Conducting extensive research in the suppression and treatment of malaria and schistosomiasis, Major Bang rendered invaluable services in connection with the welfare of troops throughout the Southwest Pacific Area. Serving in Australia and New Guinea, he undertook comprehensive scientific studies on drug treatment and drug suppression of malaria, and on malarial suppression in field units, evolving principles which minimized mortality from the disease in the theater. Subsequently, exploring the epidemiology and treatment of schistosomiasis in the Philippine Islands, he obtained information which introduced methods for determining the presence of the disease and demonstrated measures essential to its cure. Methods of investigation developed by him were effectively utilized in subsequent operations and during the occupation of Japan and Korea. Through his extensive professional ability, perserverance and devotion to duty Major Bang made a conspicuous contribution to the progress of disease control in the Southwest Pacific Area." Dr. Bang graduated from Johns Hopkins University School of Medicine, Baltimore, in 1939 and entered the service in January 1943.

Colonel Yale Kneeland Jr.

Col. Yale Kneeland Jr., Millbrook, N. Y., was recently awarded two Bronze Stars, the first one "for meritorious service in connection with military operations as consultant in medicine, Southern Base Section, and senior consultant in infec-

tious diseases, Office of the Chief Surgeon, European Theater of Operations, from July 1, 1942 to Sept. 1, 1944." The accompanying citation stated that Colonel Kneeland "was extremely instrumental in the formulation of measures for the recognition, control and treatment of infectious diseases in this theater. In addition to this he was also a member of a special committee appointed to investigate the typhus situation in North Africa, Italy and Egypt. Colonel Kneeland's conscientious and sincere devotion to duty, and his mature judgment in reallocating experienced medical officers to assure each organization maximum clinical efficiency, contributed immeasurably to the successful operation of the medical installations in this theater."

The second Bronze Star was awarded for "meritorious service in connection with military operations from March 2, 1944 to March 20, 1945." Dr. Kneeland graduated from Columbia University College of Physicians and Surgeons, New York, in 1926 and entered the service Feb. 15, 1942.

Lieutenant Colonel Leo R. Miller

Two Bronze Star medals were recently awarded to Lieut. Col. Leo R. Miller, New York. The first one was awarded for "meritorious achievement in connection with military operations against the enemy in the North African Theater of Operations from Nov. 8, 1942 to July 17, 1943." The citation further stated that "the professional skill, organizational ability and loyalty with which Major Miller commanded a clearing company contributed immeasurably to the prompt and efficient treatment of the sick and wounded throughout the North African and Sicilian campaigns."

The second award was "for meritorious service in connection with military operations as chief, Training Section, Troops and Training Branch, Operations Division, Office of the Chief Surgeon, European Theater of Operations, from Sept. 9, 1943 to Aug. 15, 1944." The citation accompanying the award explained that "Lieutenant Colonel Miller displayed unusually superior administrative and executive ability in planning, instituting and supervising a complete and comprehensive training program, adopted not only by American schools throughout the theater but by many British institutions as well. Lieutenant Colonel Miller's outstanding performance in preparing medical personnel to competently fulfil their mission was a splendid contribution to the military effort." Dr. Miller graduated from St. Louis University School of Medicine in 1937 and entered the service Feb. 6, 1941.

Major Martin Dobelle

The Army Commendation Award was recently presented to Major Martin Dobelle, chief of surgical service, Halloran General Hospital, Staten Island, N. Y., "for exceptionally meritorious conduct in the performance of duties as chief of the orthopedic surgery section, ASF Regional Hospital, Fort Belvoir, Virginia, from April 8, 1945 to May 1, 1946. Major Martin Dobelle by his extremely conscientious attention not only to his normal duties but to self-imposed tasks requiring many hours of overtime work, reorganized the orthopedic section to obtain a maximum of efficiency. He further set up a teaching program for his young untrained officers, whose value to the service has increased thereby. His outstanding performance of numerous difficult orthopedic operations has contributed most admirably to the rehabilitation of both overseas and zone of interior casualties, thereby greatly decreasing their period of hospitalization. Major Dobelle's actions have been a credit not only to himself but to the service." Dr. Dobelle graduated from Universiteit Gent Faculteit der Geneeskunde in 1934 and entered the service May 10, 1943.

Lieutenant Colonel John A. Kelly

Lieut. Col. John A. Kelly, New York, was recently informed by the War Department that "Mention-in-dispatch" had been awarded to him by the British government and that acceptance of this award and the Bronze Oak Leaf emblem had been approved and the approval made a matter of record in the War Department. According to the citation, which was signed by T. J. Grigg, Secretary of State of War, "By the King's orders the name of Major John A. Kelly, United States Army was placed on record Jan. 26, 1945 as commended for brave conduct. I am charged to express His Majesty's high appreciation of the service rendered." Dr. Kelly was awarded the Soldier's Medal in April 1944 and the Bronze Star in August 1945. During his period of overseas duty he also received commendation from the Commanding General Peninsular Base Section, the Surgeon, Mediterranean Theater of Operations, and the Surgeon, Peninsular Base Section. Dr. Kelly graduated from the University of Toronto Faculty of Medicine in 1927 and entered the service July 7, 1942.

Colonel Victor D. Washburn

The Army Commendation Ribbon was recently awarded to Col. Victor D. Washburn, Wilmington, Del. The citation accompanying the award explained that "Colonel Washburn, as a staff member of Massachusetts State Headquarters of the Selective Service System from Aug. 17, 1942 to Sept. 2, 1945, organized and operated a medical survey program designed to provide the armed forces with advance information on registrants with poor medical histories and to preclude the armed forces from accepting for induction and assuming the responsibility for men basically disqualified for service. Col. Washburn discharged this and other responsibilities of his office with distinction." Dr. Washburn graduated from the Atlantic Medical College in 1905 and entered the service Aug. 10, 1942.

Colonel Alfred R. Shands Jr.

The Legion of Merit was recently awarded to Col. Alfred R. Shands Jr., Wilmington, Del. The citation accompanying the award stated that Colonel Shands contributed immeasurably to the high standard of surgical services at all Army Air Forces medical facilities and that his leadership and organizational ability developed a standard of surgical practice which greatly reduced the period of hospitalization at a time when the conversion of manpower was of prime importance. Dr. Shands graduated from the University of Virginia Department of Medicine, Charlottesville, in 1922 and entered the service Sept. 8, 1942.

Major H. Charles Schock

The Army Commendation Ribbon was recently awarded to Major H. Charles Schock, Cleveland, "for meritorious service as Chief of Officer's Tuberculosis Section, Medical Service, Fitzsimons General Hospital, Denver. He, through his ability and unstinting efforts, and in spite of inadequate and constantly changing personnel, supervised a service of superior professional effectiveness, to the great benefit of patients at that hospital." Dr. Schock graduated from Western Reserve University School of Medicine, Cleveland, in 1927 and entered the service Sept. 16, 1942.

Major Gerald A. Beatty

The Bronze Star was recently awarded to Major Gerald A. Beatty, Wilmington, Del., for meritorious service in support of combat operations from March 22, 1945 to May 8, 1945 in France and Germany. The citation read, in part, "Major Beatty's energy, cooperative spirit, foresight and knowledge made it possible to support rapidly moving combat troops. At all times his exemplary devotion was inspirational to both patients and personnel of the unit." Dr. Beatty graduated from the Jefferson Medical College of Philadelphia in 1930 and entered the service July 31, 1942.

Major John E. Hendricks

The Legion of Merit was recently awarded to Major John E. Hendricks, Newark, Ohio, for having directed and administered the Air Forces aero-otitis control program for minimizing the problem of "ear blocking" which, during training and combat, was found to affect seriously a pilot's efficiency. Dr. Hendricks graduated from Ohio State University College of Medicine, Columbus, in 1934 and entered the service Oct. 7, 1942.

Lieutenant Colonel Murray Sanders

The Legion of Merit was recently awarded to Lieut. Col. Murray Sanders, New York, for "meritorious service in development, perfection and standardization of laboratory methods for detection and evaluation of actual and potential biological warfare agents." Dr. Sanders graduated from Rush Medical College, Chicago, in 1937 and entered the service April 22, 1944.

NAVY

MEDICAL CONSULTANTS APPOINTED TO ASSIST IN GRADUATE TRAINING PROGRAM

Vice Admiral Ross T. McIntire, Surgeon General of the Navy, recently announced the appointment of sixteen members of the Reserve Consultants Board to the Bureau of Medicine and Surgery.

The consultants are officers of the Naval Medical Reserve Corps with the exception of the consultant representing the Council on Medical Education and Hospitals of the American Medical Association. All are well known specialists in their respective fields. They will assist the Bureau of Medicine and Surgery in furthering the graduate medical training program.

This program, in addition to increasing professional proficiency and improving the standards of medical practice, is designed to afford naval medical officers the opportunity to train in medical specialties and to qualify for American Board certification, fellowship in one of the American colleges, or other marks of distinction in the same manner as doctors engaged in civilian practice.

The Reserve Consultants Board will aid in establishing the residency training program in nine U. S. Naval Hospitals located at Bethesda, Md.; Chelsea, Mass.; Great Lakes, Ill.; Long Beach, Calif.; Oakland, Calif.; Philadelphia; San Diego, Calif.; Seattle, and St. Albans, N. Y. Other naval hospitals will be utilized for training as the program expands.

The board will meet and confer at the Bureau of Medicine and Surgery, visit and survey U. S. naval hospitals in respect to the graduate medical training program, confer and advise with the medical officers in command and with the chiefs of services, and assist in the choice of reserve consultants to the staffs of naval hospitals.

At the present time the residency-type training program offers courses in the specialized fields of neuropsychiatry, dermatology and syphilology, radiology, anesthesiology, internal medicine, urology, obstetrics, orthopedic surgery and pathology. As the program develops it is planned to organize courses in other specialties. Medical officers are also receiving training in civilian institutions in recognized specialties.

The following are members of the Reserve Consultants Board:

Dr. Joseph S. Barr, instructor, orthopedic surgery, Harvard Medical School, consulting orthopedic surgeon, eye and ear infirmary.

Capt. F. J. Braceland (MC), U.S.N.R., secretary, American Board of Psychiatry and Neurology.

Dr. E. N. Bryoles, associate professor of otolaryngology, Johns Hopkins Medical School; assisting visiting laryngologist, Johns Hopkins Hospital.

Dr. Winchell M. Craig, professor of neurosurgery, University of Minnesota; neurologic surgeon and neurosurgical consultant, Mayo Clinic, Rochester, Minn.

Dr. Arthur M. Culler, associate professor of ophthalmology, Ohio State University; consulting ophthalmologist, University, Mt. Carmel and St. Francis hospitals.

Dr. Howard K. Gray, associate professor of surgery, Mayo Foundation, Post-Graduate School, University of Minnesota; head, section on surgery, Mayo Clinic.

Dr. Paul Greeley, associate professor of surgery, University of Illinois College of Medicine, chief, Division of Plastic Surgery, University of Illinois College of Medicine.

Dr. Clark Johnson, associate clinical professor, University of California; visiting urology and chief of service, San Francisco County Hospital.

Capt. George M. Lyon (MC), U.S.N.R., pediatrician, Huntington, W. Va.

Commodore Alphonse McMahon (MC), U.S.N.R., associate professor of medicine, St. Louis University School of Medicine; associate physician, St. Louis University Group Hospitals.

Dr. J. Roscoe Miller, dean and associate professor of medicine, Northwestern University School of Medicine.

Dr. Wendell Scott, associate professor of clinical radiology, Washington University School of Medicine; assistant radiologist, Edward Mallenckrodt Institute of Radiology.

Dr. Marion Sulzberger, associate clinical professor of dermatology and syphilology, New York Post-Graduate Medical School; associate director, New York Skin and Cancer Unit, New York Post-Graduate Medical School.

Dr. Paul Titus, president, Advisory Board for Medical Specialties; head, department obstetrics and gynecology, St. Margaret Memorial Hospital, Pittsburgh.

Capt. Shields Warren (MC), U.S.N.R., assistant professor of pathology, Harvard Medical School; pathologist, Huntington Memorial, New England Baptist, New England Deaconess and Pondville hospitals.

Dr. M. G. Westmoreland, Council on Medical Education and Hospitals, American Medical Association.

TWO NAVY CONVALESCENT HOSPITALS RETURNED TO FORMER OWNERS

The U. S. Naval Convalescent Hospital, Glenwood Springs, Colo., and the U. S. Naval Convalescent Hospital, Yosemite, Calif., were recently returned to their former owners. Both hospitals had existed approximately three years. More than 6,700 patients had been cared for at each hospital, according to the Twelfth Naval District medical authorities. The disestablishment of the two hospitals leaves naval hospitals at Oak Knoll, Treasure Island, San Leandro and Mare Island in the Twelfth Naval District.

NAVY AWARDS AND COMMENDATIONS

Rear Admiral Harold W. Smith

Rear Admiral Harold Wellington Smith (MC), U. S. N., retired, was recently awarded the Legion of Merit for his achievements in medical research. He is chief of the Division of Research of the Bureau of Medicine and Surgery. According to the accompanying citation, the award was given "for exceptionally meritorious conduct in the performance of outstanding services to the government of the United States while serving as officer in charge of medicine and surgery and as liaison officer with research in other government activities and civilian organizations. Selected for this important work because of his medical and scientific background, Rear Admiral Smith gave unstintingly of his time and knowledge in evolving many new medical devices and technics particularly in the fields of aviation and submarine medicine, including the development of the "blackout suit," body armor and the seawater drinking kit. By his forceful direction and careful supervision of his command, Rear Admiral Smith contributed in large part to the high level of scientific research attained by the Bureau of Medicine and Surgery and to the successful prosecution of the war." Dr. Smith graduated from Harvard Medical School, Boston, in 1901. He was appointed assistant surgeon in the Navy in 1904.

Commodore John Clausel Adams

Commodore John Clausel Adams, Washington, D. C., was recently awarded the Legion of Merit "for exceptionally meritorious conduct in the performance of outstanding services to the government of the United States as flight surgeon in charge of the Division of Aviation Medicine, Bureau of Medicine and Surgery, prior to and during World War II." The citation accompanying the award related that, "maintaining close liaison with the Bureau of Aeronautics, the Army Air Corps and civilian aviation activities, Commodore Adams procured and trained a sufficient number of medical aviation personnel to meet the urgent demands imposed by the rapid expansion of Navy and Marine Corps aviation. By his scientific knowledge and administrative ability, Commodore Adams contributed immeasurably to the advancement in aviation evacuation of casualties, to the increase in personnel safety factors and to the high level aviation medicine has attained in the Navy." Dr. Adams graduated from the University of Alabama School of Medicine, University, in 1917 and was appointed lieutenant (jg), Medical Corps of the U. S. Navy, in 1917.

PHYSICIANS SEPARATED FROM SERVICE

ARMY MEDICAL CORPS OFFICERS RECOMMENDED FOR/OR RELIEVED FROM ACTIVE DUTY

Alabama

Cochrane, Robert H. Jr.....Tuscaloosa
Gaulocher, Archibald M.....Montgomery
Howell, Julian P.....Selma
Lightcap, Clement A.....Bessemer
London, Irving D.....Montgomery
Manns, John A.....Birmingham
May, Sydney B.....Greensboro
Smith, William L.....Wetumpka
Spitzberg, Randolph H.....Mobile
Thomas, Herbert H.....Huntsville
Trousdale, Preston S.....Florence

Arizona

Flinter, Marcus H.....Phoenix
Linton, Clair S.....Tucson
Rothman, Samuel I.....White River
Southworth, Harry T.....Prescott

Arkansas

Collette, Elmon L. Jr.....Fort Smith
Dorman, John W.....Dyess
Elkins, James A.....Fort Smith
Mazzanti, Vincent E.....Lake Village
Mosley, Kirk T.....Blytheville
Samuel, John M.....Little Rock
Scott, Jett O.....Hot Springs
Steinkamp, George R.....Little Rock
Switzer, David M. Jr.....Little Rock
Walker, Troy A.....Fort Smith
Wilson, Carl L.....Fort Smith

California

Behrens, Herbert C.....Whittier
Bernardine, Camillo V.....San Diego
Casey, Homer A.....Oakland
Clarke, Frederick E. K.....Santa Monica
Clarke, William A.....Holtville
Crawford, Donald J.....Long Beach
David-Malig, Joaquin M.....Salinas
Davis, Mack I.....Oakland
Dixon, Clarence E.....Los Angeles
Elsbach, Kurt Joe.....Los Angeles
Evans, Richard D.....Los Angeles
Garron, Levon K.....San Leandro
Gazin, Albert I.....San Francisco
Gewertz, Louis L.....Los Angeles
Gordon, Franklin H.....Los Angeles
Greenberg, Jack.....San Francisco
Guardino, Salvator J.....Brisbane
Haines, Wilbur F.....San Francisco
Harrington, Donald C.....Stockton
Higgins, Eaner P.....Modesto
Hines, Leonard W.....Santa Rosa
Holmes, Robert O.....San Francisco
Hovsepian, Deron.....Pasadena
Hughes, Ronald L.....Los Angeles
Lewis, Harvey A.....Long Beach
McDaniel, George C.....Compton
McNeil, Donald.....Sacramento
Mariette, Edgar L.....Glendale
Mooney, Herbert S.....Los Angeles
Moore, J. George.....Berkeley
Mullen, Robert M.....San Marino
Nicholas, Frank G.....Los Angeles
Pendleton, Walter R.....Long Beach
Pillsbury, Stirling G.....Long Beach
Porter, James A.....Modesto
Riddell, Herman I.....Los Angeles
Rockwell, Marshall A.....Los Angeles
Roth, David B.....Los Angeles
Samuels, Julius L.....Hollywood
Sawyer, Lester J.....San Francisco
Scherb, Roger F.....Camarillo
Schwartz, Charlton R.....San Francisco
Seely, Hall.....San Francisco
Sheffner, Sidney A.....Los Angeles
Shore, Samuel F.....Los Angeles
Smith, Chester R.....Berkeley
Stout, Orin M.....Los Angeles
Taber, Kenneth W.....Pasadena

California—Continued

Toppenberg, David R.....Loma Linda
Webb, Richard F.....Pasadena
Webster, George E.....Inglewood
Wical, Elvin A.....Los Angeles
Ziegler, Robert B.....Stockton

Colorado

Battock, Benjamin H.....Denver
Clatworthy, Harry W. Jr...Fort Morgan
Hager, Chauncey A.....Denver
Herrick, Walter E.....Denver
Jones, Rodney H.....Denver
Maul, Herman S.....Denver
Parkhurst, Frederick B.....Denver
Riggs, Edward C.....Denver
Roth, Herman W.....Monte Vista
Scott, Stephen C.....Denver
Simmons, Jack M. Jr.....Denver
Wingett, Wendell T.....Pueblo

Connecticut

Amos, Isadore L.....Danbury
Beach, Carroll C. Jr.....Hartford
Burnie, George A.....Danbury
Deklyn, Ward B.....Danbury
Duzmati, Paul P.....Bridgeport
Haddad, Joseph G.....Waterbury
Keeney, Robert R. Jr.....Manchester
Kirby, Sam B.....New Haven
Lankin, Joseph J.....Hartford
Lundborg, Francis L.....West Hartford
Margolick, Moses.....Putnam
Robison, Roy C.....New Canaan
Valenski, Thaddeus J.....Thompsonville
Wies, Frederick A.....New Haven

Delaware

Cutler, Norman L.....Newark
Pomerance, Herbert H.....Wilmington

District of Columbia

Brennan, John F.....Washington
Cooper, Linn F.....Washington
Joel, Samuel W.....Washington
Lerner, David.....Washington
Lippincott, Stuart W.....Washington
Minor, John.....Washington
Morgan, Alan T.....Washington
Ruffin, Marshall D.....Washington
Seley, Leon.....Washington
Silber, Bernard.....Washington
Sullivan, John C.....Washington
Sutula, Stanley J.....Washington
Waite, Charles P.....Washington
Walters, Mary J.....Washington
Zuckerman, Saul.....Washington

Florida

Bosworth, Joseph M. Jr.....Lakeland
Economon, James G.....Orlando
Heath, Ralph T.....Tampa
Hoover, William M. Jr.....Coral Gables
Howell, Robert S.....Coral Gables
Jennings, John L.....Boca Grande
Lenholt, Eric H.....Daytona Beach
McKenzie, Emory N.....Miami
Needles, Robert J.....St. Petersburg
Rash, Jack O. W.....Miami
Schell, Warren W. Jr.....Jacksonville
Turner, Roy J.....Shamrock
Whelchel, Lynn W.....Miami

Georgia

Benson, Henry B.....Atlanta
Brooks, Henry C. Jr.....Washington
Cargill, Walter H. Jr.....Columbus
Claiborne, Thomas S.....Atlanta
Clarke, Maurice L B.....Atlanta
Clarke, William L. Jr.....Atlanta
Elkin, Daniel C.....Atlanta

Georgia—Continued

Glorig, Aram Jr.....Atlanta
Metts, James C.....Savannah
Mitchell, William B.....Trion
Mitchum, William R. Jr.....Gainesville
Nardin, Gene.....Atlanta
Robinson, John H. III.....Montezuma
Rosen, Eli A.....Dalton
Sealey, George M. Jr.....Columbus
Thomas, David R. Jr.....Augusta

Idaho

Bauman, James H.....Lewiston
Coughlin, James J.....Boise
Cramer, Harold D.....Moscow
Creed, James W.....Filer
Tigert, Allen H.....Soda Springs

Illinois

Anslinger, Cyril J.....Mt. Vernon
Ball, Fred E.....Chicago
Ballin, Michael.....Chicago
Barber, Harry C.....Normal
Bazell, Sidney R.....Chicago
Bickerman, Raymond J.....Peoria
Bodnar, Leslie M.....Chicago
Carlin, George W.....Wilmington
Cassidy, Harold B.....Chicago
Caul, Charles J.....Chicago
Ciavirella, Joseph A.....Chicago
Conklin, James O.....Paris
Corbin, John J.....Wood River
De Francois, Walter.....Chicago
Dick, Andrew A.....Chicago
Fox, Morris J.....Chicago
Frank, William W.....Clarendon Hills
Garramone, Pasquale M.....Chicago
German, Kempton L.....Aurora
Gilman, George E.....Streator
Goodman, Eli.....Chicago
Grabau, Gene H.....Caseyville
Graupner, Gustav W.....Des Plaines
Griep, Ernst August.....Quincy
Guokas, Peter J.....Chicago
Hamm, Lee N.....Lincoln
Hobbs, Thomas G.....Chicago
Holder, Norton W.....Chicago
Hughes, Charles W.....Oak Park
Hughes, James R.....Maywood
Jansen, Edward L.....Chicago
Johns, Nicholas C.....Oak Park
Johnson, Paul T.....Rockford
Jones, Richard J. Jr.....Oak Park
Kordiyak, George.....Berwyn
Kraines, Samuel H.....Chicago
Kurtz, Charles G.....Kewanee
Kvidera, George J.....Chicago
Lakin, Herbert S.....Chicago
Lash, Sidney R.....Chicago
Lewis, Samuel K.....Elmhurst
Liebling, Joseph.....Chicago
Linnville, Leroy L.....Cicero
Loiselle, Albert O.....Chicago
Lukasek, Alfred E.....Chicago
Mansowit, David.....Chicago
Marcusson, William B.....Oak Park
Miller, Herbert P.....Rock Island
Miller, Maurice.....Chicago
Mishkin, Herman L.....Chicago
Morgan, George E.....Bloomington
Mullenix, Charles W.....Chicago
Murphy, Edward L.....Chicago
Nesmith, Harry D.....Salem
Nolden, Wesley L.....East St. Louis
Parrilli, Samuel D.....Blue Island
Perkins, George L.....Chicago
Pintozzi, Carmen J.....Chicago
Pistorius, Kenneth L.....Moweaqua
Rubin, Simon S.....Chicago
Rutgard, Meyer D.....Chicago
Saltman, Simon Y.....Chicago

PHYSICIANS SEPARATED FROM SERVICE

Illinois—Continued

Saphir, William....Chicago
Schmitt, Paul G. F....Chicago
Scholnik, Sol....Genoa
Schroeder, George F....River Forest
Sheade, Albert....Chicago
Sippy, Hall I....La Grange
Smiley, William A....Chicago
Smith, James J....Chicago
Stahmann, Fred S....Peoria
Switzer, John L....Chicago
Vickery, Eugene L....Lena
Wagner, Mathias A....Chicago
Weinberg, Julius J....Du Quoin
Wellstein, Anton W....Genesee
Welsh, John W. Jr....Wheaton
Zencka, Edward A....Chicago

Indiana

Bailey, Earl W....Logansport
Brown, DeWitt W....New Augusta
Cohen, Morris....Mitchell
Cooney, Charles J....Fort Wayne
Denton, Larkin D....Greentown
Engel, Edgar L....Evansville
Gery, Richard E....Lafayette
Gill, Dee D....Greenfield
Haggard, Edmund B....Indianapolis
Hoeck, Leroy E....Charlestown
Jay, Arthur N....Indianapolis
Jenkinson, William E....Mt. Vernon
Kistner, Arthur W....Elkhart
Leffel, James M. Jr....Indianapolis
Mansfield, Max R....Indianapolis
Marcus, Emanuel....Hammond
Maris, Lee M....Attica
Maschmeyer, Robert H....Indianapolis
Mills, John F....Newcastle
Mount, William M....Crawfordsville
Pandolfo, Harry....Indianapolis
Rarick, Alden J....Cromwell
Reeder, Henry H....Jeffersonville
Schell, Harry D....Rome City
Sommers, Sheldon C....Indianapolis
Work, Bruce A....Frankfort

Iowa

Carlson, Elmer H....Muscatine
Epstein, Ernest D....Sioux City
Ergenbright, Willard V....Atlantic
Evans, Byron H....Cedar Rapids
Gray, Charles W....Anamosa
Halpin, Lawrence J....Cedar Rapids
Hanson, Russell H....Exira
Harris, Robert H....Mason City
Hecker, John T....Cedar Rapids
Hospodarsky, Leonard J....Ridgeway
January, Lewis E....Iowa City
Jensen, Arnold L....Council Bluffs
Krigsten, William M....Sioux City
McCullough, Jerome J....Iowa City
Mugan, Robert C....Sioux City
Reeder, James E. Jr....Sioux City
Reedholm, Edwin A....Nevada
Schroeder, Mellgren C....Pella
Smead, Howard H....Newton
Smith, Rupard G....Cedar Falls
Stump, Robert B....Iowa City
Veltman, John F....Winterset
Wells, Rodney C....Marshalltown
Woods, Robert P....Iowa City
Wyatt, Merlin R....Manning
Yetter, William L....Iowa City

Kansas

Cole, Ward M....Wellington
Foncannon, Franklin W....Emporia
Kendall, Donald A....Great Bend
Montgomery, Charles E. Jr....Hoxie
Roberts, Howard E....Topeka
Sartorius, Herman C....Garden City
Schmaus, Lyle F....Iola
Schulte, Emmerich....Kansas City
Steinzeig, Alfred S....Kansas City
Wittmann, Albert F....Wichita

Kentucky

Blanton, Harvey C....Richmond
Cloyd, William C....Stone
Cracraft, Charles B....Wheelwright
Crosby, William D....Eastwood
Duncan, Ellis....Louisville
Elliott, Marvin M....Louisville
Evans, Sandige....Louisville
Ewing, William M....Louisville
Gaillard, Ernest Jr....Louisville
Harrison, Meyer M....Louisville
Massie, William K. Jr....Louisville
Meredith, Thomas O....Harrodsburg
Middlestadt, Edwin F....Louisville
Porter, Charles B....Calhoun
Reichert, Robert E....Park Hills
Rickman, Samuel M....Paris
Sparks, Olma D. Jr....Van Lear
Wells, Henry G....Georgetown

Louisiana

Browning, John R....Cotton Valley
Glover, John R....New Orleans
Herpich, Edwin J....Baton Rouge
Holoubek, Joe E....New Orleans
Lehmann, Benjamin J....New Orleans
Long, John W....New Orleans
May, Harvey C. Jr....New Orleans
Miles, Henry H. W....New Orleans
Mouch, Larry S....Port Allen
Voorhies, Henry C. Jr....Lafayette
Webb, George M....Tallulah
Wilcox, Leland G....New Orleans
Wilson, Charles H....New Orleans

Maine

Flanders, Merton N....Waterville
Tousignant, Camille....Lewiston

Maryland

Ball, John G....Bethesda
Bernstein, Milton....Baltimore
Brinsfield, Irving C....Vienna
Castagna, Joseph V....Baltimore
Cohen, Hilliard....Baltimore
Connolly, Harry J....Baltimore
Cox, Percy E....Easton
Gareis, Louis C....Baltimore
Hand, Benjamin H....Baltimore
Isaacs, Benjamin H....Baltimore
Kurland, Albert A....Baltimore
Levinson, Lorman L....Baltimore
Marshall, Joseph H....Sykesville
Miller, Harry A....Baltimore
Spence, John M. Jr....Baltimore
Sullivan, Maurice....Baltimore
Sullivan, Sullins G....Baltimore
Sunday, Stuart Dos P....Baltimore
Tilghman, Richard C....Baltimore
Vollmer, Frederick J....Baltimore

Massachusetts

Bateman, William A....Lawrence
Bell, George O....Boston
Brines, John K....Wellesley
Chase, Louis S....Cambridge
Domenici, Trento J....Holyoke
Douglass, Hector B....Bridgewater
Engelbach, Albert G....Cambridge
Ettenberg, Max....Belmont
Fincle, Louis P....Dorchester
Grenn, Francis P....New Bedford
Haddad, Fred Kaliel....Jamaica Plain
Jergesen, Floyd H....Boston
Kelman, Morris....Buzzards Bay
Leary, Frank R....New Bedford
Lee, Charles F....North Andover
Lerner, Henry H....Brookline
McManus, John F....West Newton
Menard, Oliver J....Longmeadow
Miller, Harold I....Rochester
Mills, Arnold....Mattapan, Boston
O'Doherty, Robert J....Newton

Massachusetts—Continued

Pandolfino, Joseph....Boston
Savage, Edward G....Sharon
Selsby, Irving I....North Adams
Shane, Theodore....Matapan
Shaw, John E....Newburyport
Silverman, Irving....Roxbury
Simons, Sidney M....Arlington
Smith, Ernest Griggs Jr....Braintree
Sprague, John S....Brighton
Stein, Max D....Quincy
Stone, Samuel M....Springfield
Sullivan, Garrett Leo Jr....Boston
Sweetsir, Frederick N....Merrimac
Violette, Roger N....Fall River
Warren, Joseph E....Brookline
Weinstein, Barnett....Peabody
Weinstein, Max I....Lawrence
Weiss, Carl A....Lawrence
Wiesner, Ernest E....Brockton
Willard, Kenneth H....Framingham
Wissing, Egon G....Boston
Wolbarsht, Abraham....Worcester
Wood, John L....Methuen
Yosko, Norman....East Longmeadow

Michigan

Best, John W....Detroit
Collins, Arthur D....Detroit
Connelly, Cornelius J....Bay City
Cory, Charles W....Saginaw
Cretsinger, Francis C....Kalamazoo
Diskin, Frank....Muskegon
Douglas, James B....Detroit
Fischer, James E....Ann Arbor
Gelenger, Stephen M....Flint
Gingrich, Wayne A....Dearborn
Goldman, Perry....Detroit
Greenberg, Jack R....Detroit
Hauser, Maurice J....Detroit
Holdsworth, Moses J....Grand Rapids
James, John W....Saginaw
Lance, Paul E....Romeo
Lentz, Robert J....Traverse City
Levant, Arthur B....Grosse Pointe Woods
McCune, William S....Petoskey
Mahon, Ralph D. Jr....Milan
Malone, James G....Kalamazoo
Maresh, Everett Ross....Detroit
Muske, Paul H....Dearborn
Norton, Richard C....Battle Creek
Nosanchuk, Joseph I....Pontiac
Parker, Donald A....Detroit
Reuter, Clarence W....Bay City
Rottschafer, Gerald....Detroit
Seski, Arthur G....Detroit
Snedeker, Bernard C....Detroit
Stamell, Benjamin B....Detroit
Ulrich, Willis H....Detroit
Willson, Wesley W....Detroit
Zimmerman, Israel J....Detroit

Minnesota

Brink, Donald M....Duluth
Clegg, Reed S....Rochester
Dowidat, Raymond W....Minneapolis
Eisenstadt, William S....Minneapolis
Golden, Robert F....Rochester
Heinz, Lawrence H....Hastings
Leemhuis, Andrew J....Minneapolis
Miree, James Jr....Minneapolis
Paulson, Elmer C....Elbow Lake
Petrich, Thomas G....Eveleth
Proeschel, Ray K....Willmar
Sather, George A....Fosston
Sax, Milton H....Eveleth
Sekhon, Mohan S....St. Paul
Snyder, Clifford D....Elmore
Taylor, Charles B....Minneapolis
Usher, Francis C....Rochester
Van Rooy, George T....Minneapolis
Vigeland, George N....St. Paul
Wahlberg, Elmer W....Sleepy Eye
Wilson, William H....Rochester

PHYSICIANS SEPARATED FROM SERVICE

Mississippi

Armstrong, William R.....Iota
Royce, Robert K.....Isola
Tyrone, Nelson O.....Prentiss
Wadlington, James E.....Florence

Missouri

Barnhart, Willard T.....St. Louis
Bassman, Roland S.....University City
Boemer, Lilburn C.....St. Louis
Carle, Horace W. Jr.....St. Joseph
Conrad, Robert W.....St. Joseph
Czupryk, Henry T.....St. Louis
Drescher, Emmett B.....St. Louis
Dworkin, Saul.....St. Louis
Franck, John R. Jr.....St. Louis
Ginsberg, Norman A.....Kansas City
Hall, Frank W.....Cape Girardeau
Hogan, Daniel F.....Kansas City
Hurst, Martin J.....Kansas City
Impastato, Frank.....St. Louis
Jackson, Seaton J.....St. Louis
Keim, John H.....Kennett
Kenamore, Bruce D.....Webster Groves
McKnight, Howard E.....St. Louis
Moss, Paul.....Kansas City
O'Donoghue, James.....St. Joseph
Parker, Hubert M.....Kansas City
Rothermich, Norman O.....St. Louis
Rouse, David M.....St. Louis
Shier, Julius M.....St. Louis
Silverberg, Charles.....Richmond Heights
Smith, Rollin H.....Rich Hill
Stanbro, William W.....St. Louis
Stortz, Robert B.....Clayton
Tolle, Cecil E.....Kansas City
Trowbridge, E. H. Jr.....Kansas City
Turner, Walker M.....Clayton
Ward, Joe W.....Poplar Bluff
Wedin, Paul H.....Mt. Vernon
Well, Julius W.....Palmyra
Wilson, Fernando I.....Kansas City
Youngman, George A.....St. Louis

Montana

Chapple, Richard R.....Billings
Vesely, David G.....Hamilton

Nebraska

Ewing, Eugene G.....Madison
Faier, Samuel Z.....Omaha
Malony, William R.....Omaha
Perlman, Herschel L.....Lincoln
Schwedhelm, Albert J.....Norfolk
Shepard, Robert D.....Nebraska City

New Hampshire

Grevior, Archie.....Manchester
Provencher, Robert F.....Manchester
Richard, Marc E.....Dover

New Jersey

Bang, Frederik B.....Princeton
Biunno, Anthony J.....Newark
Bromberg, Jules H.....Newark
Carabelli, Amilcare A.....Trenton
Casagrande, Stephen.....Belmar
Chase, Anthony V.....New Brunswick
Colmer, Meyer J.....Newark
Covino, Louis L.....Newark
Crane, Warren E.....Loch Arbour
Crastnopol, P.....Newark
Day, Hayward F.....North Plainfield
DiFino, Felix J.....Newark
Dochtermann, Warren P.....Chatam
Galioto, Frank M.....Bloomfield
Grimes, James G. Jr.....Nutley
Grossblatt, Philip.....Newark
Hensle, Otto S.....Hackensack
Infield, Gerald L.....Northfield
Kline, Herman.....Atlantic City
Klosterman, Julius A.....Bogota
Kluft, Jack M.....Perth Amboy
Mann, James.....Paterson
Mar, Thomas M.....Weehawken

New Jersey—Continued

Mazzotta, Samuel J.....Wildwood
Mishell, Daniel R.....Maplewood
Monfort, Robert N.....Jersey City
Policastro, Nelson C.....Hackensack
Raphael, Chester M.....Marlboro
Reitman, Norman.....New Brunswick
Rieck, Allan.....Pleasantville
Rossi, Generoso.....Bound Brook
Rubin, Harold.....Asbury Park
Russell, Karl S.....Collingswood
Russomanno, Raymond L.....Newark
Santoro, Thomas A.....Newark
Schaffer, Nathan.....East Orange
Shafer, Albert H.....Camden
Smaine, Enrique Del C.....Carlstadt
Smith, Bertram H.....Haddon Heights
Statile, Pasquale A.....Jersey City
Stevenson, Gordon M.....Summit
Taylor, Robert H.....Maplewood
Thompson, Victor G.....Trenton
Verga, Armand F.....Jersey City
Walker, Levi M.....Atlantic City
Ward, William R. Jr.....Hillside

New Mexico

Patterson, Joseph H.....Albuquerque
Stone, Coy Smith.....Hobbs

New York

Adler, Hyman.....Brooklyn
Agin, Henry V.....Brooklyn
Bandell, Herbert.....New York
Barone, Michael H.....Buffalo
Bean, Berten C.....Buffalo
Beck, Gilbert M.....Buffalo
Belinkin, William.....Bronx
Bennett, Bradford S.....Syracuse
Bernstein, Oscar H.....Brooklyn
Boldt, Waldemar H.....Binghamton
Bolduan, Nils W.....Forest Hills
Cali, Saro M.....Brooklyn
Carbone, Francis T.....Buffalo
Cares, Reuben.....Brooklyn
Carlino, Charles I.....Bronx
Caronna, Joseph P.....New York
Castilone, Samuel J.....Olean
Cavaliere, Joseph T.....Brooklyn
Centerwall, Everett T.....Morrisville
Chaintreuil, Jean A.....Rochester
Chiara, Nicholas J.....Brooklyn
Chojnacki, Louis A.....Lackawanna
Cilmi, Joseph L.....Brooklyn
Cione, Lindo.....Brooklyn
Cockerill, Thomas J.....New York
Cohen, Irving.....Flushing
Cohn, Sidney.....Bronx
Contento, Salvatore J.....New York
Conway, Alexander.....Bronx
Coulter, Norman F.....Scottsville
Cristina, Jerome F.....Buffalo
Darlington, Charles G.....New York
Davies, Baxter T.....Rochester
De Lessio, Frank A.....Haverstraw
De Lorenzo, Dominic R.....Yonkers
D'Esopo, John S.....New York
Diamond, Harry J.....Brooklyn
Dimmick, Edgar L.....Brooklyn
Dwyer, Cornelius J. Jr.....Brooklyn
Edelman, Morton H.....New York
Edman, Emanuel.....Sag Harbor, L. I.
Elcaness, Harold.....Bronx
Ellman, Sydney D.....Ridgewood, Queens
Elson, Francis S.....Jamaica
Fein, Harry D.....New York
Ferguson, George C.....Amsterdam
Ferrari, Filibert A. L.....Buffalo
Franzese, Pasquale P.....Brooklyn
Furtherer, Charles M.....Rochester
Gillman, Aaron M.....Brooklyn
Gluck, Roland.....Brooklyn
Glynn, Edward L.....Richmond Hill
Gompertz, Michael L.....New York
Greco, Pasquale A.....Buffalo
Greenberg, Henry.....Lindenhurst

New York—Continued

Greenblatt, Louis.....Bronx
Greene, Justin L.....New York
Greenwald, Frank.....Prattsville
Grund, Joseph.....Liberty
Haralambie, James Q.....Larchmont
Hawro, Vincent A.....Buffalo
Heywood, James S.....Utica
Higginson, Frank M.....Baldwin
Higinbotham, Norman L.....New York
Hotkins, Albert S.....Brooklyn
Hugel, Louis.....Kingston
Jacobson, Abo A.....New York
Jacobsen, Arnold.....New York
Jaros, Stanislaus H.....Jackson Hgts., L. I.
Jelsomino, Samuel J.....Buffalo
Jirus, Anthony R.....Scarsdale
Johnson, Robert A.....New York
Jones, John A. Jr.....New York
Kantor, John L.....New York
Kelly, Aloysius T.....Far Rockaway
Kenney, Chauncey W.....Syracuse
Kindar, Adam A.....Amsterdam
Kinsey, Roy E.....Peekskill
Klein, Joseph.....Brooklyn
Kossack, Irving.....Richmond Hill, L. I.
Kronish, Martin J.....New York
Ladany, Emory.....New York
Laico, Andrew J.....Brooklyn
Larralde, Juan.....New York
Lehman, Lester.....New York
Leone, Frank G.....Utica
Liberali, Charles L.....Kew Gardens
Liebmann, James.....New York
Lipsitz, Morton H.....Buffalo
Long, George F.....Elmhurst
Loomer, Harry P.....Brooklyn
Lustbader, Philip F.....New York
McAuliffe, William J.....New York
McGarvey, James C.....Buffalo
Mage, Sigmund.....New York
Markowitz, Max.....Brooklyn
Maroon, Habeeb Z.....Kingston
Mastronarde, Nicholas A.....Oneonta
Mesick, Martin R.....Syracuse
Miceli, Peter A.....Flushing
Miller, John F.....New Rochelle
Mishkin, Ralph D.....New York
Mitchell, Michael L.....Brooklyn
Nied, Richard E.....Rochester
Northman, Frank F.....Hudson Falls
Orlando, Philip A.....Bronx
Painton, Joseph F.....Snyder
Parlangeli, Louis J.....Jackson Hgts., L. I.
Patt, Emanuel.....Bronx
Peale, Robert C.....Olean
Pecora, David V.....Yonkers
Pons, Eduardo R. Jr.....New York
Pugh, Walter S.....Utica
Quinby, Shepard.....Hamburg
Razinsky, Louis.....Far Rockaway
Reed, Harry G.....Binghamton
Reisman, Saul J.....New York
Rhoads, Harmon T.....New York
Richman, Robert M.....New York
Richter, Emanuel J.....New York
Rie, George A.....New York
Rittenberg, Leonard M.....Bronx
Robertson, Theodore.....Brooklyn
Rogoff, Bernard.....Ozone Park
Rolbin, Harold L.....New York
Rollins, Irving M.....Forest Hills, L. I.
Rook, George D.....Brooklyn
Rosen, Victor H.....New York
Rosenberg, David A.....Bronx
Rosenberg, Elliot N.....Far Rockaway
Rosenstein, Jack J.....New York
Roth, Joseph J.....New York
Rowe, Edwin C.....East Hampton
Rowlingson, John W.....Syracuse
Rozett, Oscar.....Long Island City
Rubin, Zoltan.....Astoria, L. I.
Rubins, Irving.....Brooklyn
Rudomanski, Victor.....Brooklyn
Sachs, Aaron Raoul.....Brooklyn

PHYSICIANS SEPARATED FROM SERVICE

New York—Continued

Safran, Nathaniel.....Flushing, L. I.
Sapsin, William.....Canton
Shar, Sidney.....Bronx
Schacht, Mervyn.....New York
Schachtel, Maurice W.....New York
Schiff, Leonard J.....Plattsburgh
Schildkrout, Herman...Forest Hill, L. I.
Schlamowitz, Isadore.....Brooklyn
Schneider, Louis A.....New York
Schor, Joseph.....New York
Schroff, Jerome.....Bronx
Schwalbe, Nathan A.....Brooklyn
Schwartz, Albert A.....Bronx
Schwartz, Arthur G.....Rome
Schwartz, Harold A.....New York
Schwartzwald, Joseph.....Brooklyn
Schweich, Albert.....New York
Schwiebert, Edward H...Bellerose, L. I.
Schwimmer, Frank F.....Brooklyn
Sckolnick, Herman.....Bronx
Sechzer, Philip H.....Bronx
Sejinski, Herman.....New York
Shapero, Edward B.....Brooklyn
Shapiro, Frank.....Sinclairville
Shapiro, Mortimer F.....Brooklyn
Shapse, Joseph B.....Brooklyn
Sheer, Frederick.....Brooklyn
Shepard, Clarence A.....Rochester
Shevlin, Charles F.....Jamaica
Siegel, Charles.....Flushing
Siegel, Charles W.....Brooklyn
Skinner, Raymond L.....Greenwich
Smith, Henry T.....New York
Smith, Vladimir.....Jackson Heights
Solomon, Irving.....New York
Solomon, Nathan.....Bronx
Spector, Sidney.....Brooklyn
Stalonas, Anthony J.....Brooklyn
Starin, Irving.....Bronx
Steenburg, Charles B.....New York
Stoller, Louis W.....Red Hook
Suffin, Samuel Paul.....Flushing
Sullivan, John E.....New York
Swartz, Harry.....New York
Swope, Ralph E.....New York
Sydoriak, Walter L.....Buffalo
Thibault, George E.....Chittenango
Towitz, Solomon.....Brooklyn
Trilling, Leonard J.....New York
Unangst, Daniel G.....Yonkers
Valente, Frank N.....Long Island City
Vyner, Harold L.....Brentwood, L. I.
Wall, William L.....Batavia
Weber, Fredrick L.....Syracuse
Weinless, Jacob.....Bronx
Weinstein, Benjamin.....New York
Weisman, Savill G.....New York
Werner, Abraham.....Bronx
Wesolowski, Stanley P.....Warwick
Wilkinson, Robert S.....New York
Wilner, Sol.....New York
Winning, Stuart A.....Brooklyn
Wittenberg, Stanley J.....Brooklyn
Zelvin, Philip.....Brooklyn
Zindler, Irving M.....New York

North Carolina

Briggs, Henry H.....Asheville
Craig, Robert L.....Durham
Hollister, William F.....Durham
Lassiter, Will H.....Selma
Lihn, Henry.....Fairmont
McCain, French H.....Asheville
McCutcheon, William B.....Durham
Martin, William F.....Charlotte
Montgomery, John C.....Charlotte
Morrow, Arch S.....High Point
Parks, William C.....High Point
Parrette, Richard G.....Robbinsville
Pressly, David L.....Statesville
Query, Richard Z. Jr.....Charlotte
Royster, Chauncey L.....Raleigh
Schulze, William.....Durham

North Carolina—Continued

Shepard, Karl.....High Point
Smith, Jay L. Jr.....Spencer
Sykes, Ralph J.....Raleigh
Whaley, James D.....Hickory
Wright, Charles N.....Jarvisburg

North Dakota

Goughnour, Myron W.....Hazelton

Ohio

Andrews, Stanley B.....Toledo
Apple, James D.....Dayton
Aufderheide, Vincent A.....Dayton
Ballard, Robert E.....Lakewood
Barr, Frederick G. Jr.....Dayton
Barr, James O.....Cleveland
Barrows, Emil L.....Cincinnati
Bavor, Herbert J.....Berea
Beasley, William D.....Springfield
Bell, James R.....Shaker Heights
Beynon, David E.....Girard
Brown, David V.....Columbus
Burkons, Harold F.....Shaker Heights
Catalano, Frank A.....Cleveland
Chapin, Louis D.....Cleveland
Clark, Clayton W.....Cleveland
Cooper, Maurice P.....Toledo
D'Alessandro, Arthur F.....Cleveland
Debold, John A.....Wilmington
Decker, Martin.....Middletown
De Oreo, Gerard A....Cleveland Heights
Devins, Edward J.....Cincinnati
Donley, Robert F.....Columbus
Epstein, Francis W.....Toledo
Epstein, Harold C.....Cleveland Heights
Erb, Alfred W.....Pique
Fargo, Warren C.....Cleveland
Felker, Crawford L.....Toledo
Fergus, Joe A.....St. Paris
Fine, Archie.....Cincinnati
Fomenko, Peter A.....Cincinnati
Frankle, Henry P.....Lima
Frick, David C.....Toledo
Friedmar, Sam.....Toledo
Gerson, Charles E.....Dayton
Goff, Sylvanus W.....Akron
Haas, Leonard J.....Cleveland
Haas, Richard L.....Dayton
Hafkenschiel, Joseph H. Jr...Youngstown
Hathhorn, Harold E.....Youngstown
Heery, Ralph.....Cincinnati
Hendricks, John E.....Newark
Herbert, Joseph M.....Columbus
Hewes, Frederic L.....Westlake
Hoffman, Henry L.....Cleveland
Hoge, K. M. Jr.....University Heights
Hunting, William F.....Cincinnati
Ippoliti, Andrew C.....Dillonvale
Irish, Everett A.....Barberton
Jackson, Harry D.....Circleville
James, Arthur G.....Columbus
Jones, John L.....Medina
Kenney, Vernon C.....Chagrin Falls
Kimmel, Alexander H.....Norwalk
Klein, Julius B.....Cleveland
Knowlton, Edgar A.....Cleveland
Kope, Edward.....Akron
Krisko, Michael J.....Cleveland
Laidlaw, Arthur E.....Cincinnati
Lawyer, Frank G.....Cambridge
Lemert, Charles C.....Cincinnati
Levin, Joseph J.....Canton
Lewis, David R.....Grove City
Long, Ray H.....Cleveland Heights
Loomis, Elmer C.....Dayton
McCarthy, Kenneth C.....Toledo
McConkey, Harmar H.....Canton
McDonald, Frank M.....Akron
Magid, D.....Cleveland Heights
Maier, Reuben R.....Shaker Heights
Marcus, David.....Cleveland Heights
Martin, Walter E.....Columbus Grove
Mattax, James O.....Warren

Ohio—Continued

Mehl, Lawrence B.....Cuyahoga
Miller, Alexander.....East Cleveland
Miller, Richard C.....Dayton
Miller, Robert F.....Bellevue
Miller, Thomas S.....Maumee
Mincks, Charles B.....Cuyahoga Falls
Minnig, Donald I.....Akron
Minor, Howard H.....Steubenville
Mitchell, Homer L.....Columbus
Moore, Charles H.....St. Bernard
Moore, William A.....Cincinnati
Morrissey, Paul Gunkle Jr.....Livia
Morton, Wallace.....Toledo
Myers, Cyril E.....Akron
Nisius, George F.....Cleveland
Novak, Theodore W.....Columbus
Obert, Charles A.....Lakewood
O'Hare, James E.....Cleveland
Ormond, Alfred C.....Zanesville
Paternite, Carl J.....Toledo
Petcoff, Boni E.....Toledo
Pfaadt, William E.....Cambridge
Phillips, Alexander K.....Youngstown
Piercy, Robert L.....Youngstown
Price, Pliny A.....Toledo
Pugh, Albert E.....Cleveland
Rab, Thomas P.....Dayton
Rayman, Lawrence.....Toledo
Read, John T.....Columbus
Reich, Roland A.....Centerville
Rheingold, Jack J.....Cincinnati
Rivers, Daniel C.....Cincinnati
Roach, William L.....North College Hill
Robertson, Alexander D.....Willard
Rohr, Lovell W.....Columbus
Rosewater, Ralph S.....Lakewood
Sawan, Edward A.....Akron
Schaffer, Allen L.....Cleveland Heights
Schillinger, Arnold A.....Chillicothe
Schroder, Charles R.....Cincinnati
Sheinin, Louis.....Akron
Skinner, George C.....Cincinnati
Skirball, Wilbert P.....Columbus
Sloan, Richard H.....Marietta
Smith, Beecher L.....Columbus
Snively, Lloyd M.....Massillon
Start, Gwyn H.....Toledo
Steuer, Leonard G.....Cleveland
Stewart, Wilbur F.....Fostoria
Stitts, Curtis S.....Springfield
Stoughton, Wilbur A.....Columbus
Tagett, Harold O.....Rock Creek
Temple, William J.....Ironton
Tilton, Louis J.....Frazeysburg
Todd, Oliver E.....Toledo
Uhl, Judd W.....Hamilton
Vangrov, Stanley.....Dayton
Watson, Thomas W.....Wayne
Weinblatt, Morris.....Toledo
Weiss, Leo.....Toledo
Weitz, Myron A.....Shaker Heights
Wells, Jay R.....Cleveland
Westerbeck, Daniel J.....Cincinnati
White, Charles A.....Mt. Vernon
Williams, Joseph R.....Eaton
Winston, Samuel H.....Dover
Wolff, Daniel S.....Toledo
Wylie, Lehrd B.....Lakewood
Yeager, Floyd D.....Marion
Young, Arthur F. Jr.....Lakewood
Ziegler, Harold C.....Toledo

Oklahoma

Clark, John V.....Oklahoma City
Coats, Rugie R.....Oklahoma City
Cotteral, John R.....Henryetta
Daughterty, Francis J.....Oklahoma City
Edwards, David L.....Tulsa
Gilliland, Lloyd N. Jr.....Frederick
Hesser, James M.....Glencoe
Lisle, Achilles Courtney Jr.....McLoud
McCreight, William G....Oklahoma City
McIntosh, Robert K. Jr.....Tahlequah

PHYSICIANS SEPARATED FROM SERVICE

Oklahoma—Continued

Mitchell, Tom H.....Tulsa
Morton, Ralph W.....Sulphur
Rose, Ernest.....Sulphur
Seba, Chester R.....Oklahoma City
Snow, James B.....Oklahoma City

Oregon

Belknap, Hobart D.....Portland
Chronovsky, Valdemar.....Prairie City
Farley, Thomas F.....Klamath Falls
Jackson, Logan E.....Portland
Rogers, Arthur L.....Portland
Smith, Clarence W.....Portland

Pennsylvania

Agnew, Harold S.....Ensworth
Alpern, Algernon N.....Pittsburgh
Althoff, Charles C.....Hanover
Aronson, Joseph D.....Wayne
Backus, Wayne E.....Pitcairn
Barnes, Leroy T.....Philadelphia
Bastacky, Morris.....Pittsburgh
Beinstein, Joseph.....Wilkes-Barre
Berkheimer, George A.....Windber
Bieri, John W.....Philadelphia
Bohlender, George P.....Erie
Boice, Gwernydd N.....McKeesport
Borowsky, Sydney M.....Philadelphia
Bowers, Maurice H.....Bellevue
Bradley, David V.....Philadelphia
Brady, Fred C.....Charleroi
Brennan, Andrew J.....Birdsboro
Brown, Henry P. Jr.....Philadelphia
Bruecken, Gilbert J. A.....Pittsburgh
Buri, Karl E.....Intercourse
Burns, Hugh J.....McKeesport
Bush, Herman.....Beaver Falls
Cadwallader, William H. Jr...Pittsburgh
Caldwell, Richard A.....Pittsburgh
Carbonetta, Reno R.....Lancaster
Carroll, Edward J. Jr.....Pittsburgh
Casselman, Hyman L.....Erie
Cheleden, John J.....Philadelphia
Cirelli, Mario G.....Philadelphia
Clark, John J.....Philadelphia
Cobern, Charles B.....Washington
Cohn, Clarence.....Philadelphia
Cohen, Max.....Philadelphia
Collings, Thomas S.....Philadelphia
Collins, Leon H. Jr.....Merion
Connole, John F. Jr.....Wilkes-Barre
Cotter, Ralph E.....Wilkinsburg
Crowell, James A.....Philadelphia
Crozier, Alfred W. Jr.....Pittsburgh
Dana, George W.....E. Mauch Chunk
Davis, Edward T. Jr.....Rochester
Deshong, Howard C.....Lansdowne
Diamond, Sidney J.....Woodlyn
Donaldson, Arthur Van E....Canonsburg
Donato, Anthony A.....Philadelphia
Donghia, Sebastian A.....Vandergrift
Duca, Philip J.....Philadelphia
Dugan, Robert J.....Erie
Eckley, Robert.....Cresson
Eglick, Paul G.....Philadelphia
Ehrgott, Wiliam A.....Lebanon
Ellis, William.....Enfield
Ender, Carl A.....Philadelphia
Epstein, Joseph N.....Philadelphia
Erb, Howard R.....Swarthmore
Evans, Hayden O.....Tamaqua
Ferer, Walter C.....Conneaut Lake
Fisher, William K.....Wilkinsburg
Fiterman, Morris.....Philadelphia
French, James B.....Philadelphia
Garvin, Robert O.....Pittsburgh
Gibbs, John O.....Philadelphia
Gordon, John W. Jr.....Belle Vernon
Glenney, Wilton R.....Pottsville
Goyne, James B.....Gettysburg
Grady, Hugh G.....Drexel Hill
Grove, Don B.....Wilkinsburg
Hall, Vincent B.....Export
Harmon, Edison H.....Connellsville

Pennsylvania—Continued

Hartman, Russell M.....Fleetwood
Hickok, Robert L.....Scranton
Hobbs, Robert E.....Shenandoah
Hooper, Kendall.....Philadelphia
Huffer, Donald H.....York
Hugg, John H.....Jeannette
Hutchinson, Paul V.....Pittsburgh
Jacques, George A.....Brackenridge
Johnson, Lewis M.....Lancaster
Kahn, David.....Philadelphia
Kalisch, Arthur C.....York
Kissen, Martin D.....Emporium
Klaus, Irving G.....Philadelphia
Kornfield, Harry.....Philadelphia
Korsmo, Carl T.....Punxsutawney
Korson, Selig M.....Wilkes-Barre
Kough, Othello S.....Uniontown
Kunkel, Paul A. Jr.....Harrisburg
Kutra, Peter G.....Collegeville
Lang, Paul R.....Narberth
Leadbetter, Mark R.....Barnesboro
Leiby, Lewis J.....Slatington
Lieber, Marshall M.....Philadelphia
Lillicrapp, Edgar F.....Hatboro
Limber, Carl R.....Latrobe
Linder, Edgar K.....Hamburg
Lindig, Hesser C. C.....Glenside
Loeb, Roland A.....Lancaster
Lotz, Andrew J.....Paoli
Luders, John A.....Philadelphia
Luscombe, Herbert A.....Johnstown
Lutz, Edgar H.....Denver
Lutz, Raymond J.....Tamaqua
Lyle, Donald F.....Philadelphia
McBurney, Harold H.....Avella
McGuire, Edward J.....Scranton
McClements, William M.....Pittsburgh
McConnel, Charles S.....Waynesboro
McDonald, Roland J.....McAdoo
McKelvey, Paul G.....Greensburgh
McKinley, Oscar V.....Brookville
Magilner, Louis.....Philadelphia
Mamula, Milton.....Pittsburgh
Mankovich, Paul A.....Punxsutawney
Markley, Ralph.....New Castle
Markson, Victor I.....Beaver Falls
Marsico, Anthony.....Philadelphia
Miller, Alfred B.....Philadelphia
Miller, Anton M.....St. Clair
Miller, Frank LeRoy.....Collegeville
Miller, Frederick A.....Curtisville
Miller, William B.....Harrisburg
Mills, Melvin D.....West Decatur
Milo, Richard A.....Pittsburgh
Mogan, Christopher J.....Philadelphia
Moran, William H.....Scranton
Mullin, Harry.....Scranton
Nave, John A.....Beaver Falls
Noonan, Paul E.....Meadville
Novak, Anthony J.....McKeesport
O'Brien, James N.....Harrisburg
O'Neill, Hugh A.....Pittsburgh
Osler, John F.....Hazleton
Paradowski, Frank W.....Philadelphia
Parker, James H. Jr.....Wyomissing
Pearce, Alexander E.....Philadelphia
Pepper, Dickinson S.....Bala Cynwyd
Perchonock, Meyer.....Philadelphia
Persing, Dan H.....Philadelphia
Perkins, Charles G.....Trucksville
Pettis, George S.....Reading
Plume, Theodore W.....Philadelphia
Pomerantz, Harry.....Scranton
Rack, Morris A.....McKeesport
Rankin, James H. Jr.....Fredericksburg
Reed, Oliver G.....Roscoe
Reich, Sidney M.....Wyoming
Renton, Arthur D.....Vandergrift
Richardson, Fred MacD.....Philadelphia
Rinehimer, John S.....Tunkhannock
Ripp, Jacob.....Pittsburgh
Robb, Harry J.....Pittsburgh
Rockman, Manley.....Sayre
Rodgers, Edson R.....Freedom

Pennsylvania—Continued

Rongaus, Walter F.....Donora
Roscoe, Constantine R.....Philadelphia
Rosenbloom, Stanley E.....Pittsburgh
Rowe, Stuart N.....Pittsburgh
Rupp, Robert A.....Pittsburgh
Sackett, Charles F.....Philadelphia
Saidman, Lester M.....Kingston
Sanes, Gilmore M.....Pittsburgh
Saylor, Clyde L.....Meyersdale
Schaaf, Charles F.....Erie
Schlosser, Woodrow D.....Harrisburg
Schumaker, Donald H.....Leechburg
Schwartz, Albert M.....Philadelphia
Schwartzman, Samuel.....Philadelphia
Segal, Hyman I.....Philadelphia
Sejda, Martin B.....Chester
Seltzer, Mitchell.....Phoenixville
Shaffer, Donald Y.....New Brighton
Shapiro, Richard P.....Philadelphia
Sheedy, John J.....Philadelphia
Shemanski, Clem J.....Reading
Shevlin, John F.....Carbondale
Shields, John J.....Philadelphia
Shields, William E.....Upper Darby
Silverman, Maurice.....Philadelphia
Slipakoff, Bernard G.....Philadelphia
Smith, Forrest F. Jr.....Hallstead
Smith, Harold C.....Kingston
Smith, Richard T.....Harrisburg
Snyder, Maurice W.....Manor
Solit, Jacob.....Philadelphia
Spalletta, Camillus H.....Scranton
Spiegel, Charles.....Wilkinsburg
Spiegel, Herbert X.....McKeesport
Stewart, Hubert C.....Pittsburgh
Sutula, John V.....West Hazleton
Swift, Shelley A.....Philadelphia
Taggart, William G.....New Oxford
Thomas, Thomas.....Oil City
Thompson, Oliver A.....Dixmont
Tillman, Joseph M.....Philadelphia
Tolver, Ralph R.....Philadelphia
Tomaseski, Chester G.....Donora
Tredway, John B.....Erie
Trexler, Ethan L.....Fleetwood
Turner, William B.....Carlisle
Tushim, John A.....Punxsutawney
Tuttle, Alfred.....Pittsburgh
Van Saun, William A....Mahanoy City
Vecchio, Raymond E.....Washington
Wagenseller, Frank C.....Richfield
Waldman, Joseph.....Philadelphia
Wallace, Robert W.....New Brighton
Walter, Paul J.....Wernersville
Weaver, Gordon D.....Tamaqua
Weaver, William A. Jr.....Marion
Weigler, Richard R.....Pittsburgh
Weinberger, Emanuel M....Philadelphia
Weiner, Julius C.....Lansdale
Weinstock, Jerome L.....East York
Welch, William L.....Philadelphia
Wenger, Sidney U.....Reading
Wessel, Isadore J.....Philadelphia
Whalen, Edward M.....Wilkes-Barre
Whitaker, Paul J.....Pittsburgh
White, Warren F.....Somerset
White, William J.....Pittsburgh
Wiggins, Walter S.....Philadelphia
Wightman, William W.....Pittsburgh
Williams, Glenn L.....Philadelphia
Wilson, Paul B.....New Castle
Wilson, Robert N. Jr.....Philadelphia
Worth, Charles B.....Swarthmore
Yoh, Harold N.....Reading
Zamborsky, Edward J.....Allentown
Zerbe, Robert B.....Tremont

Rhode Island

Kant, Alfred.....Cranston
Kaskiw, Emil A.....Woonsocket
Lippitt, Louis D.....Providence
Melucci, Alfred F.....Pawtucket
Rogell, David.....Providence
Taft, George H.....Providence

PHYSICIANS SEPARATED FROM SERVICE

South Carolina

Craig, William R. Jr.....Walhalla
Durant, Carey T.....Elliot
McLeod, James C.....Florence
Owings, Francis P.....Union
Ravenel, Joseph A.....Charleston
Roper, Charles P.....York
Stokes, Joseph J.....Charleston
Switzer, Paul K. Jr.....Union
Wilson, William H.....Abbeville
Wolfe, Albert B.....Orangeburg
Workman, Claude H. Jr.....Greenville

South Dakota

Lemley, Ray E.....Rapid City
McCarthy, Paul V.....Aberdeen

Tennessee

Arnold, Dwight N.....Cleveland
Berson, Robert C.....Brownsville
Boals, John O.....Memphis
Cooper, Sam M.....Knoxville
Darnall, Robert M.....Union City
Douglass, Jack E.....Stanton
Epstein, Robert D.....Nashville
Erwin, J. W.....Blountville
Johns, Daniel J.....Nashville
Kalmon, Edmond H. Jr.....Nashville
Leek, Edwin S.....Petersburg
Lockwood, Dudley G. Jr.....Memphis
Luckey, Carl F.....Memphis
McCrory, Charles F.....Humboldt
Marcy, John O.....Bristol
Matthews, James H.....Nashville
Moore, Frank A.....Bethel
Nevans, Herman B.....Livingston
Schwartz, Irving R.....Nashville
Smith, Thomas E.....Jackson
Tucker, William H. Jr.....Nashville

Texas

Arnold, Jasper H.....Houston
Bellnoski, William O. Jr.....Willis
Borsheim, Raymond S.....San Antonio
Bullard, Ray E.....Waco
Carter, Ray H.....Marshall
Cochran, John R.....Fort Worth
Etter, Edward F.....Sherman
Girard, Percy M.....Dallas
Gossett, Robert F.....San Antonio
Gray, Paul M.....Corpus Christi
Grossman, David N.....Corpus Christi
Guice, LeRoy E.....Sabinal
Halpern, Salmon R.....Dallas
Hansen, Carl M.....Washington
Harris, Herbert H.....Houston
Harrison, Malcolm W.....Houston
Hartin, Richard B.....Arlington
Hodges, Harold C.....Mesquite
Howell, William L.....Ft. Worth
Hudson, Granville W.....San Antonio
Huff, Mark E.....Wichita Falls
Hughes, Raymond P.....El Paso
Knight, Marvin P.....Dallas
Lauck, Robert E. Jr.....Waco
Lee, Ridings E.....Dallas
Loehr, William M.....San Antonio
Loveless, James E.....Slaton
McDaniel, MacField.....May
McMahan, George T.....Dallas
Matthews, Choice B.....Alba
Merrill, Samuel J.....Brownsville
Mitchell, Robert H.....Plainview
Mohle, Chester L.....Dallas
Mohle, Flavius D.....Houston
Moore, Samuel F. Jr.....San Antonio
Payne, John E. Jr.....Marshall
Pickett, William H.....Palestine
Ponder, Stewart M.....Galveston
Rabb, Virg S. Jr.....Austin
Ravel, Jerome O.....Austin
Redwine, Harry P.....Snyder
Reed, Roy G.....Cameron
Robertson, George W.....Dallas
Russo, Emilio N.....Waco

Texas—Continued

Scanio, Thomas J.....West
Scanlan, Nestor.....Brownsville
Schaefer, John K.....Houston
Shapiro, Jake.....Conroe
Simmons, Lillard N.....Victoria
Slataper, Eugene L. Jr.....Houston
Solis, Rene A.....Rio Grande City
Suehs, Herbert A.....Henderson
Tasch, Aloysious F.....Taft
Tritt, Earl F.....San Antonio
Tyner, Furman H.....Port Arthur
Upshaw, Jackson E.....Dallas
Wall, D. D.....San Angelo
Weaver, Manly E.....Coleman
Weatherford, Jack M.....San Antonio
Wilson, Stephen W.....Linden

Utah

Gordon, Sidney B.....Ogden
Snow, Clarence E.....Salt Lake City
Spendlove, Ray E.....Bingham Canyon

Vermont

Archambault, Rene F.....Barre
Dugan, Otley L. Jr.....Lowell
Eddy, Frank D.....Burlington
Jenks, Paul C.....Burlington
Maeck, John Van S.....Shelburne
Rich, Robert F.....Burlington
Rowe, Maurice E.....Barnet
Stannard, Edward C.....West Haven
Wright, John T.....Waterbury

Virginia

Alexander, Charles P.....Richmond
Arey, Donald L.....Danville
Bell, Richard P. Jr.....Staunton
Brickhouse, Robert L.....Norfolk
Caravati, Charles M.....Richmond
Carter, Aubrey R.....Blairs
Cherry, Kenneth J.....Richmond
Cleveland, Fred E. Jr.....Swoope
Cohen, Franklin H.....Norfolk
Cox, Joseph E.....Waynesboro
Creger, James D.....St. Paul
Dudney, Lester R.....Layland
Ewart, George E.....Richmond
Fitzpatrick, Hamilton D.....East Radford
Harrington, Roberts H.....Marion
Lieberman, Nolton S.....Portsmouth
Klein, Arthur.....Richmond
La Prade, Edmund M.....Richmond
Lidman, Bernard I.....Norfolk
McClintic, Moses H.....Roanoke
McNiel, John G.....Manassas
MacRae, Colin.....Alexandria
Neal, Edward B.....Roanoke
Orzac, Edward S.....Norfolk
Owens, Tracy C.....Salem
Parker, Joseph C.....Richmond
Perrow, James B. S.....Hurt
Ramsey, Oscar L. Jr.....Gretna
Rosenbaum, George R.....Jewell Ridge
Scarlett, Thomas.....Harrisonburg
Shelton, Otis N.....Orange
Southward, Wilbur R. Jr.....Richmond
Vermilya, George D.....Richlands
Warren, Charles W.....Upperville
White, Reid Jr.....Lexington
Whitley, Ayer C.....Palmyra

Washington

Andrews, Harry H.....Sumner
Bailey, Gayton S.....Seattle
Betzold, Paul F.....Montesano
Bourns, Thomas L.....Seattle
Brink, Francis M.....Spokane
Brundage, Hiram F.....Yakima
Code, Clarence L.....Seattle
Crow, Donald R.....Seattle
Ehrlich, Albert.....Tacoma
England, Lewis K.....Yakima
Gilbert, Harry A.....Mt. Vernon
Joy, Frederick B.....South Seattle
Mattison, Lawrence M.....Seattle

Washington—Continued

McLemore, Harold H.....Spokane
Morgan, William E.....Aberdeen
Riedesel, Allen W.....Aberdeen
Reiswig, Elmer A.....Seattle
Sarro, Nicholas.....Seattle
Scheckner, Leo.....Tacoma
Seth, Raymond E.....Seattle
Shearer, Frank W.....Toppenish
Spellman, Clarence W.....Seattle
Sturdevant, Kenneth H.....Puyallup
Thompson, James P.....Yakima
Thompson, Roger S.....Seattle
Waldron, Martin R. Jr.....Seattle

West Virginia

Akers, Robert H.....Kermit
Ballard, Oscar D.....Van
Beard, Harry E.....Huntington
Blanton, James L.....Fairmont
Boso, Clarence H.....Huntington
Bowyer, Arkie B.....Elkview
Castrodale, Dante.....Anawalt
Crank, Gilbert O.....Lawton
Cunningham, George R.....Killarnay
Daner, William E.....Paden City
Fisher, Charles F.....Clarksburg
Fleming, Harry C.....Fairmont
Freeman, Charles W.....Charleston
Freeman, James A. Jr.....Fairmont
Hall, Carl B.....Red Jacket
Hancock, Henry H.....Union
Lukens, Robert W. Sr.....Wheeling
Lutz, Athey R.....Parkersburg
Morris, John F.....Huntington
Ross, Charles H.....Wayne
Sims, Thomas C.....Fayettesville
Staats, Enoch D.....Ripley
Starcher, Everett H.....Earling
Sutphin, Adney K.....Beckley
Vermillion, James S.....Welch
Ward Harold W.....Clay
Warden, William P.....Charles Town
Whittico, James M. Jr.....Bluefield
Wood, Edward W.....Beckley

Wisconsin

Aguirre, Mariano R.....Milwaukee
Bennett, Abner P.....Madison
Christianson, Herbert B.....Superior
Clifford, Jack E.....Milwaukee
Connor, Angie.....Marshfield
Cummings, Earl F.....Oshkosh
Davis, Ernest D.....Madison
Dieter, Donald G.....Cobb
Fechter, Francis R.....Milwaukee
Garens, Ralph W.....Milwaukee
Graber, Louis D.....Mineral Point
Grossmann, Erwin E.....Milwaukee
Gulbrandsen, Halbert.....Viroqua
Hougen, Edward T. Jr.....Sheboygan
Johnson, Fred G. Jr.....Superior
Jones, Weston W.....Portage
Kohn, Louis.....Milwaukee
Lemmer, Kenneth E.....Madison
Lillie, Richard H.....Wauwatosa
Mailer, Andrew R.....Madison
Milchen, Carl.....La Crosse
Moran, Clement J.....La Crosse
Moss, John G.....Westfield
Paulson, Jerome F.....Sun Prairie
Pessin, Joseph.....Madison
Pick, Daniel M.....West Bend
Prasser, Donald O.....Madison
Ross, Maurice E.....Beloit
Ruskin, Benjamin A.....Wauwatosa
Sarfatty, Isaac J.....West Allis
Shapiro, Herman H.....Madison
Sweet, Samuel J.....Milwaukee
Thompson, Edward T.....Milwaukee
Waffle, Robert L.....Fond du Lac
Weaver, David F.....Green Bay

Wyoming

Platz, Charles P.....Casper

MEDICAL OFFICERS RELEASED BY THE NAVY

NAVAL RESERVE MEDICAL OFFICERS RECOMMENDED FOR RELEASE FROM ACTIVE DUTY

Ohio

Ayres, Perry R.....Columbus
Banfield, William S.....Irondale
Bilton, Joseph L.....East Cleveland
Burnett, Melbourne J.....East Liverpool
Campbell, John A.....Akron
Cazan, George M. Jr.....Martins Ferry
Clark, Thomas E.....Columbus
Clodfelter, Harve M.....Columbus
Cloyes, Robert D.....Cleveland Heights
Craver, William L.....Martins Ferry
DeStefano, George A.....Cincinnati
Dineen, Frederick J.....Painesville
Fischbach, William M.....Cincinnati
Fulton, Robert D.....Cleveland
Giuseffi, Jerome Jr.....Cincinnati
Grimm, Paul E.....Columbus
Gross, Sol.....Cleveland
Hill, Arthur G.....Steubenville
Hopple, Henry E.....Toledo
Houston, William B.....Akron
Hunnicutt, Thomas D.....Cincinnati
Johnson, Bernard L.....Deshler
Jnaup, Wesley E.....West Salem
Kelley, Warren S.....Lakewood
Leach, Joseph T.....Ironton
Levin, Tom S.....Cincinnati
Macey, William N.....Cleveland
McNeal, Elmore Rice.....Cleveland
Main, Robert E.....Athens
Marvin, Theodore R.....Elyria
Morgan, Donald N.....Lakewood
Morris, Harry D.....Cleveland Heights
Mulder, Peter H.....Wooster
Nichols, John H.....Cleveland
Nuss, Robert H.....Cleveland
Perry, William H.....Cleveland
Porterfield, Robert A.....Willoughby
Portmann, Albert F.....Cleveland
Pumphrey, Robert Earl.....Dayton
Rakody, John T.....Columbus
Rea, Frederick W.....Marion
Renner, William J.....E. Cleveland
Renz, Andrew C.....Cincinnati
Robechek, Philip J.....Cleveland
Ross, Thomas F.....Columbus
Ruegsegger, James M.....Baltic
Schafer, Walter L.....Fremont
Schmidt, John R.....Cincinnati
Smith, John P.....Mogadore
Smith, Thomas L.....Lorain
Stevenson, Audrey W.....Bowling Green
Tobin, John D.....Cleveland
Washam, William T. III.....Columbus
Weiss, Andrew J.....Cincinnati
Welch, Corliss M.....Cincinnati
Willoughby, Edward O.....Dayton

Pennsylvania

Alberstadt, Norbert F.....Erie
Ambrose, Julius W.....Allison Park
Ayers, William B.....Bethlehem
Bacon, Lewis H. B.....Pottsville
Bailey, Jack F.....Elkland
Bashline, Don L.....Pittsburgh
Bellew, Bernard A. L.....Philadelphia
Berg, Charles F.....Pittsburgh
Berry, Theodore J.....Philadelphia
Blackmore, William.....Llamerch
Bloom, Max R.....Pittsburgh
Brecher, William.....Philadelphia
Brundage, Oliver H.....Upland, Chester
Brunner, Richard A.....Jenkintown
Bugbee, Edwin P.....Springfield
Cambotti, Jacob E.....Newcastle
Connell, James V.....Philadelphia
Couch, Manfred R.....Midland
Crevello, Albert J.....Warren
Dougherty, Wilson.....Pittsburgh
Drumheller, George H.....Aspinwall
Elwell, William J. Jr.....Jonestown

Pennsylvania—Continued

Etzl, Michael M.....Philadelphia
Fitzgerald, Orville M.....Jersey Shore
Furrie, James M.....Coraopolis
Gabroy, Harry K.....Norwood
Gage, Robert W.....Philadelphia
Garman, Russell A.....Jeannette
Geist, Donald C.....Philadelphia
Goebel, James L.....Uniontown
Greco, Toby A.....Philadelphia
Gurley, Lycurgus M. Jr.....Johnstown
Hammell, Frank M.....Allentown
Hark, Bernard.....Philadelphia
Harris, James J.....Boston
Hawkins, Donald B.....Germantown
Heaton, Vincent W.....Harrisburg
Heinan, Frederick C.....West Allis
Heintzelman, John H. L.....Pittsburgh
Hemminger, Earl W.....Somerset
Hirsch, Jack H.....Pittsburgh
Johnston, Joseph M.....Pittsburgh
Johnston, Russell M.....Salinsgrove
Joyce, John J. III.....Wynnewood
Kanhofer, Harry.....Aspinwall
Kay Raymond J.....Wayne
Kilmer, John H.....Cynwyd
Kline, Harry N. G.....Philadelphia
Knorr, John K. III.....Wayne
Krick, Earl S.....Jenkintown
Krosnoff, Michael.....Scenery Hill
Lachman, John W.....Brookline
Lasky, Lester.....Erie
Leam, John A.....Ashland
Lewis, James P.....Wynnewood
Lofgren, Robert C.....Philadelphia
Long, Theodore K.....Lebanon
Maccubin, Harry P.....Drexel Hill
Mansuy, Matthew M.....Williamsport
Metz, Walter A. R.....Pittsburgh
Meyers, Solomon B.....Johnstown
Mullen, Joseph J.....Philadelphia
Nelson, Lyle M.....Pittsburgh
Norley, Walter N. Jr.....Philadelphia
O'Connell, Daniel J.....Jeanette
Olson, John D.....Philadelphia
Park, Thomas E.....Bentleyville
Parry, Rhinard D.....Easton
Phillips, Roger E.....Philipsburg
Porter, Richard A.....Palmerton
Posey, Dale M.....Christiana
Prosser, John O.....Hollidaysburg
Purdum, Frederick P.....East Brady
Purvis, Joseph D. Jr.....Butler
Quickel, Kenneth E.....Camp Hill
Ricchiuti, Joseph F.....Pottsville
Richardson, Ernest C. Jr.....Juniata
Roessing, Lawrence W. Jr.....Pittsburgh
Rogers, Edwin D.....Philadelphia
Roose, Arthur E.....Pittsburgh
Rosenbloom, Charles H.....Charlerio
Scott, Kenneth S.....Westchester
Schaffer, Robert J.....Jeannette
Schraer, Paul H.....Philadelphia
Servoss, Homer M.....Garland
Shelly, Robert M.....Philadelphia
Shutter, Walter D.....Wilmerding
Sloan, Malachi W. Jr.....East Stroudsburg
Smith, Ruthledge F.....Philadelphia
Starr, Abraham.....Pittsburgh
Stevens, Russell A.....Wilkes-Barre
Thomas, Edward L. C.....Upper Darby
Thomas, George C.....Sunbury
Thompson, Charles M.....Ardmore
Tihansky, Theodore B.....Philadelphia
Tindall, Herbert L. Jr.....Elkins Park
Treires, George J.....Lock Haven
Troncelliti, Edward A.....Bryn Mawr
Uddstrom, Clarence N.....Pittsburgh
Ungar, John Jr.....Sewickley
Urban, Joseph T.....Mahanoy City
Van Hook, Cloyd D.....Ruston

Pennsylvania—Continued

Waddington, A. W. W.....Philadelphia
Walp, Frederic M. J.....Slatington
Walsh, James P.....Lansdowne
Wible, Claire E.....Pittsburgh
Williams, Angelo M.....Burgettstown
Zibelman, Samuel C.....Merion
Ziegenhorn, Karl H. H.....Merion
Yost, Charles S.....Bloomsburg

Virginia

Ames, Richard H.....Onancock
Andrews, Mason C.....Norfolk
Belair, Joseph F.....Alexandria
Call, John D.....Richmond
Combs, Nelson B.....Norfolk
Cox, Louis P.....Fredericksburg
Gooch, Garrett G. III.....Roanoke
Goodloe, Noble M.....Staunton
Hoskins, Horace D.....Lynchburg
Jenkins, Charles E.....Alexandria
Maphis, Frederick D. Jr.....Roanoke
Miller, Maurice J.....Norfolk
Mourot, Arthur J.....Alexandria
Ney, Charles.....Harrisonburg
Nutter, Paul J.....Richmond
O'Brian, Leland R. Jr.....Lynchburg
Overton, Franklin L. Jr.....Norfolk
Owen, Victor P.....Richmond
Schmidt, Albert F.....Norfolk
Shiflet, Robert E.....Norfolk
Stewart, George A. Jr.....Clifton Forge
Stone, William C.....Roanoke
Stoneburner, Richard G.....Richmond
Tomlinson, William E. Jr.....Richmond
Vitsky, Maurice S.....Richmond
Williams, Armistead D.....Richmond
Williams, James P.....Richlands
Wilson, Joseph F.....Richmond
Yorkoff, Eugene J.....Charlottesville

Wisconsin

Baker, Vance LaMar.....Wauwatosa
Beardsley, Robert C.....Madison
Beebe, DeWitt C.....Sparta
Belfus, Frank H.....Milwaukee
Clark, Daniel M.....Clinton
Cook, Harold E.....Milwaukee
Cleveland, David A.....Milwaukee
Cutter, William W. Jr.....Oshkosh
Dasler, Herbert A.....Madison
Dean, Frank K.....Madison
Decock, Robert D.....Wauwatosa
Fifrick, Lloyd L.....Plymouth
Garland, James G.....Milwaukee
Gilbertsen, Cecil R.....Janesville
Gute, Edwin B.....Whitefish Bay
Hamilton, William P.....Dodgeville
Hansen, Horace J.....Sheboygan
Hargarten, Lawrence W.....Milwaukee
Hildebrand, William B.....Menasha
Hovis, William F. Jr.....Milwaukee
Hutter, Adolph M.....Fond du Lac
Juhl, John H.....Washburn
Kauth, Charles P.....Port Washington
Kern, Elmer E.....Mukwonago
McCormick, Stuart A.....Madison
Mannis, Harry.....Sparta
Park, Casimir F.....Milwaukee
Purtell, James J. F.....Milwaukee
Randall, Emery M.....Fond du Lac
Rothenmaier, Glenway L.....Racine
Schneider, Clifford R.....Milwaukee
Schoenecker, Edgar A.....Lake Mills
Skibba, Joseph P.....Kaukauna
Sowka, Paul N.....Stevens Point
Stoops, Charles W. Jr.....Platteville
Verdone, Anthony J.....Milwaukee
Welsh, Charles E.....Portage
Wishart, John H.....Eau Claire
Wright, Robert S.....Milwaukee

ORGANIZATION SECTION

Washington Letter

(From a Special Correspondent)

July 1, 1946.

Army-Navy Send 'Flying Lab' to Study Cosmic Rays

The Navy Department's Office of Research and Inventions reports that it has jointly undertaken with the Army-Air Forces to send three B-29s 8½ miles into the upper atmosphere to study the effects of cosmic rays. Two cosmic ray radiation experts, Dr. Robert Brode of the University of California and Dr. Carl Anderson of the California Institute of Technology, will supervise the research. They will try to learn the effect of cosmic radiation on human beings subjected to these radiations at a high altitude. They will also check their effect on microwaves and on electronic guiding systems.

Army Study Means of Curing Aphasia

Surg. Gen. Norman T. Kirk of the Army Medical Department reports that service medical and psychologic experts are testing ways to make brain adjustments for veterans afflicted with aphasia. Among the unusual aphasia combinations reported are cases of men who can write but not read, others who read but cannot understand spoken language and others who can read with their eyes but not with their voices. Dr. Kirk explained that injury of some specific area of the brain resulted in loss of use of the particular activity of the body with which it was associated. As the brain is an adaptive organ, brain tissue adjacent to an injured section is able to take over its functions. As a result aphasia is seldom permanent if treated properly. The army medical chief said that studies and tests being made in army hospitals revealed that often the biggest barrier to quick recovery was the wrong emotional attitude.

District Medical Society Votes to Establish Prepayment Plan

In line with recommendations of the American Medical Association, the Medical Society of the District of Columbia has voted unanimously to establish a prepayment medical care service in Washington and invited Group Hospitalization, Inc., to administer the program. Under the plan, subscribers would receive surgical and obstetric care in hospitals, and subscribers may pick a physician of their choice who is cooperating in the plan. Theodore W. Wiprud, secretary of the society and of its committee on medical care, stated that, "as soon as conditions permit, it will be expanded to include medical care." Harry Becker, president of Group Health, consumer sponsored medical prepayment plan, said "The District society's plan appears to be a progressive step and we congratulate the physicians of Washington for recognizing that this problem exists for the consumers of medical care."

Bacteriologic Warfare Reported as Deadly as Atomic Bomb

Major Gen. Alden H. Waitt, chief of the Army's Chemical Warfare Service, testifying before the House Appropriations Committee regarding the War Department's 1947 budget of $7,091,000,000, which the group approved, said that "the potentialities of bacteriologic warfare are of the same order as those of the atomic bomb. I feel that the only peace control is the control of war; certainly one cannot control the bacteriologic weapon that can be investigated and worked on in small laboratories and cellars."

Mount Alto Investigators Study Hardening of the Arteries

Dr. Aaron H. Traum, chief of the Mount Alto veterans hospital cardiovascular research, reports that his unit has undertaken a lifetime study among 400 veteran patients of arteriosclerosis of the heart. The disease is a major cause of death of persons over 40, killing more than 25,000 Americans in one year. More than 700 veterans of World War II pensioned for the disease are under 40, which prompted the Veterans Administration to inform the medical profession that the disease is not restricted to middle aged persons.

General Aurand to Head Army Research and Development Division

The War Department announced that Major Gen. Henry S. Aurand, former commanding general of the Sixth Service Command at Chicago, has been named director of the new Research and Development Division of the General Staff. He will head up all army research and will keep informed on atomic development, although he will not take charge of the Manhattan District, the atomic bomb development agency. Major Gen. Leslie R. Groves will continue as the Manhattan District chief.

Limited Production of Streptomycin a Possibility

The Civilian Production Administration reports that a limited commercial distribution of streptomycin is a possibility soon. April production rose to a new peak of 36,982 Gm., an increase of 10,642 over March, and June is expected to show a further increase.

Medical Legislation

STATE LEGISLATION

Louisiana

Bills Passed.—H. 264 passed the house June 19. Relating to the taxing powers of municipalities throughout the state, it proposes to authorize, among other things, the power to levy and collect a license tax on and regulate all professions and occupations conducted within the limits of a municipality. H. 272 passed the house June 19. It proposes the enactment of a mental health act to provide for the discovery and treatment of mental disorders. H. 734 passed the house and senate June 24. It proposes the construction of a charity hospital, to be known as the Confederate Memorial Medical Center, for the proper care of the chronic and of the acutely ill; to provide adequate space and facilities for the treatment of tuberculosis in all its phases; to provide a modern thoracic surgical unit; to provide facilities for the proper treatment of poliomyelitis; to provide improved facilities for the treatment of psychiatric patients; to provide improved facilities for the treatment of cancer with additional space for a cancer clinic, and for other purposes.

Massachusetts

Bills Enacted.—H. 820 has become chapter 491 of the Laws of 1946. It provides for the construction and maintenance of an additional hospital for feebleminded children. H. 1822 has become chapter 577 of the Laws of 1946. It provides that any applicant for a license to practice a profession who has served in the armed forces of the United States during World War II shall be subject only to educational and experience qualifications required prior to Sept. 16, 1940. H. 1972 has become chapter 473 of the Laws of 1946. It provides for the admissibility in evidence of copies of hospital records of other states.

Coming Medical Meetings

American Urological Association, Cincinnati, July 22-25. Dr. Thomas D. Moore, 899 Madison Ave., Memphis 3, Tenn., Secretary.
Montana, Medical Association of, Great Falls, July 18-20. Dr. Raymond F. Peterson, 9 W. Granite St., Butte, Secretary.
National Medical Association, Louisville, Ky., Aug. 20-23. Dr. John T. Givens, 1108 Church St., Norfolk 10, Va., Secretary.
Utah State Medical Association, Salt Lake City, Aug. 29-31. Dr. D. G. Edmunds, 610 McIntyre Bldg., Salt Lake City, Secretary.
Washington State Medical Association, Spokane, Aug. 19-21. Dr. A. J. Bowles, 1215 Fourth Ave., Seattle, Secretary.

THE WAGNER-MURRAY-DINGELL BILL

Hearings on S. 1606—To Provide for a National Health Program

(NOTE.—*This is a condensation of the verbatim report of the hearings.*—ED.)

(Continued from page 767)

United States Senate, Committee on Education and Labor.

MAY 22, 1946

HON. JAMES E. MURRAY Presiding

PRESENT: Senators Murray, Pepper and Donnell.

Statement of Dr. John J. Nugent, Director of Education, National Chiropractic Association

DR. NUGENT: I appear here in favor of the general terms of this bill. I believe the purposes of the bill are sound and that society must deal with this problem in a realistic fashion. The bill is replete with the terms "medical services," "medical practitioners," "family practitioners," and these terms are used in conjunction with the words "health program" and "health care" so that they might be almost called synonymous. I think these terms need clarification. It is very obvious that the authors of this bill intended that the citizens of this country should have every care possible. But I believe, and it is thoroughly understandable, that the authors of this bill could not foresee all the implications and all the collateral issues that might grow out of this bill. It is for that purpose that I want my testimony to be helpful today. I am sure there is no intent in the bill to restrict the freedom of choice of the doctor.

There are some 10,000 osteopathic practitioners in the United States, and there are approximately 20,000 chiropractors. And these practitioners are licensed in the states. Osteopathy is recognized in all the states. Chiropractic is legally recognized practice in all the states but four. So I think that for the 30,000,000 people who consult these nonmedical practitioners for their health needs there should be some clarification of the terms, and I intend to submit some amendments later to make sure that the rights of these 30,000,000 people are safeguarded in that respect.

The construction of the bill, according to the terms of the bill now, would naturally lead the administrator, or even the courts, to construe the act as restricting the benefits of this bill to purely medical benefits. I mean medical not in its generic sense but in its narrowest meaning. It is a principle, of course, which Congress and the House and the Senate have well recognized, most recently in the hospital survey and construction bill, child welfare and maternity bills, that the state has the sovereignty and the states have retained for themselves the right to define the practices of the healing arts and who shall practice, and Congress has recognized that right.

That, gentlemen, is the attitude of the National Chiropractic Association, that there should be some clarification of the terms, that there should be some amendment to protect the practice of not only the nonmedical practitioners but, more importantly, to protect the rights of people to choose these practitioners and consult them for their health needs under this bill.

SENATOR MURRAY: Your statement is very clear, and I think that it will help us greatly in considering the problem before us. Any questions, Senators?

SENATOR DONNELL: I think not.

SENATOR PEPPER: No questions.

SENATOR MURRAY: Thank you very much.

Statement of Arthur J. Todd, Manager, Christian Science Committee on Publication

MR. TODD: Arthur J. Todd, emeritus professor of sociology at Northwestern University, representing the Committee on Publication of the Christian Science Church in Boston. I come before you as the representative of one of the groups totaling millions of citizens who do not rely on medicine or medical treatment for health and healing and who would be penalized by the provisions of this bill, S. 1606. By millions I mean not alone Christian Scientists but many others who have sought and found satisfactory remedies in means other than those provided in this bill. On their behalf I object to the establishment by law of a monopoly for one branch of the healing arts. The authors of this legislation base their taste for it on the ground that only through the use of compulsory insurance will many people be able to pay the expenses of sickness. All are to be taxed for this purpose. But what of the many who cannot, because of their convictions, accept the remedies provided? They have been taxed. The government has taken its deduction for medical care out of their weekly pay. They do not wish the kind of treatment provided under the bill; but, as has repeatedly been brought out in testimony before this committee, they must either accept that in which they have no confidence or pay themselves for the healing remedy of their choice. If it is so difficult for many persons to pay once for medical care as the proponents of this bill declare in urging it, what shall be said of the difficulty of paying twice—once in taxes, and a second time in order to have the kind of treatment one desires?

Before going further, let me say that if this bill would actually produce all the good results claimed for it, we as Christian scientists would not oppose it; we might ask for an amendment but not defeat of the measure. By no means do we look at this legislation from our own point of view. We have in view the welfare of the general public as well. If the bill would greatly improve the health of the great majority who rely on medical treatment, we should certainly not object to its passage. But we are convinced that such beneficial effects would not follow. This judgment is based on reports of the experience with compulsory health insurance in foreign countries, on testimony given by medical men at this hearing and on our own understanding of the nature of disease. We believe that government medical care, combined with cash payment during illness, would have the same tendency here as elsewhere to prolong sickness, to produce an inferior quality of medical care and to lead many people to seek medical service when they did not really need it simply because they could get it without further expense. In short, we believe that compulsory health insurance would tend to minimize the will to get well and would foster unnecessary medication.

This bill has a monopolistic angle that is not in keeping with American tradition of antitrust and equal freedom for all. Why should one form or branch of the healing art be set up exclusively as the remedy which people must accept and for which they must pay taxes? It has been argued that to require citizens to pay taxes for medical services that will be of no use to them is no different than requiring all property owners to pay taxes for support of the public schools when some religious denominations prefer to maintain denominational schools of their own. On close examination this supposel analogy breaks down. In the case of compulsory health insurance, Christian scientists cannot take advantage of the supposed health provisions at all, because it is a violation of the tenets and teachings of Christian science for Christian scientists to accept and rely on medical treatment. They have to have their own form of treatment or none at all if they are to stick to their religion. In the case of denominational schools it is not a violation of the tenets and teachings of their religions for parents of these denominations to send their children to public schools, and they do so in great numbers.

Christian Science is a system of healing as well as a religion. Healing the sick through Christianly scientific prayer is an essential religious element. Christian scientists believe that reliance on material methods of healing is incompatible with reliance on divine aid and that it is not correct under divine law to rely on both. Christian scientists know that the right of religious freedom is a constitutional right—a right which the majority of people wish to see preserved. They also know that, although their method of treating the sick runs contrary to the prevailing systems of today, it is an integral part of their religion and therefore a constitutional right. They note with alarm that proposed plans for health insurance threaten to trample on this priceless right by establishing such so-called insurance on a strictly medical basis under the supervision, regulation and administration of medical men and according to medical standards. In these hearings it seems to have been assumed that health is merely an economic or physical issue. Many million beneficiaries of spiritual healing would, with eminently good reason, question that assumption. And I may interpose here that the United States census listed about forty

denominations that depend on divine healing. They would insist that this committee and the proponents of compulsory health insurance on a national scale face and answer the following question:

Is there any more warrant for establishing a state medicine designed to embrace everybody than for establishing a state religion? State medicine is imperialism, not democracy. It savors of the one party system of our recent enemies which we have poured out blood and treasure to destroy. If, as we insist, healing is an integral part of a religious faith and practice, any attempt to fasten on this country a compulsory tax supported system of health insurance is an interference with that freedom of religion guaranteed by the Bill of Rights. It in no wise clears away this obvious illegality to assert, as has been asserted in these hearings, that nobody will be compelled to accept medical, surgical, hospital or nursing services contemplated under Senate bill 1606. The requirement to pay taxes violates constitutional protection of religious freedom no less than would universal requirement to submit to compulsory medicine or hospitalization or emperor worship. To deny us the right to make freely our own decisions in matters of faith and health is indeed a very thinly disguised form of atheism. Would you dare to force us to accept and pay for a system of health insurance in the face of testimony before this very committee by the highest health authority in our government that confronted, for example, by the common cold, his profession has no preventive remedy?

Lest some one should gain the impression that if those who depend on spiritual means for healing might become a menace to the health of the rest of the people, it should suffice to appeal to the record. Any insurance or health authority will tell you that we are law abiding people and "good risks." We constitute no danger to public health but on the contrary are a distinct asset to it. We come before this committee not as opposing any system of medicine or surgery or health regimen. We do not desire to impose our way of thought or healing on anybody. We believe in voluntary acceptance or rejection of political, religious or medical beliefs. There is room in this broad land of ours for a great variety of patterns of effort and belief and experimentation. There is plenty of work for all of us to do. We simply ask that we be permitted to enjoy the same freedom which, as American citizens, supporting the American way of life, we are trying to sustain for others. For that reason our plea is not merely for the hundreds of thousands depending on spiritual means for healing but on behalf of all the American people whose fundamental freedoms are threatened by this projected legislation. Therefore, with all the strength we can summon we must and shall continue to oppose this specious offer of insurance to the American people as a none too subtle invasion of their basic constitutional rights and threatening to impose an undeclared but inevitably huge financial burden on them. We oppose a very obvious and burdensome evil masquerading as a contingent good. Christian scientists urge you to beware of this latest form of a benevolent despotism which we had hoped our forefathers swept away a century and a half ago. We urge you not to attempt to force healing effort into a single mold but to rally all the health potentialities of our country, to encourage them to the highest voluntary effort. We urge you to beware of unleashing the forces of fear, passivity, dependence on materiality and tyrannical bureaucracy which would inevitably plunge us into deeper misery than what you seek, we believe inadvisedly, to relieve by this proposed legislation.

SENATOR MURRAY: Any questions, Senator?

SENATOR DONNELL: Dr. Todd, approximately how many of our citizens are Christian scientists? MR. TODD: We are forbidden by the basic manual of our denomination from giving out the figure. We do not depend on numbers, but I can say, for your information—

SENATOR DONNELL: Pardon me, Doctor. I do not mean to interfere. MR. TODD: I can answer it this way: we do not reckon any longer in thousands or hundreds of thousands.

SENATOR DONNELL: That is sufficient, Doctor. MR. TODD: It goes over into the millions. SENATOR MURRAY: Thank you, Doctor.

Statement of Elizabeth W. Wilson, Ph.D., Associate, Actuarial Society of America

DR. WILSON: I am a Ph.D. in economics and statistics. I am also an associate of the actuarial Society of America. I am the first woman to be seated in the International Actuarial Conference. For a time I was associated with the office of the actuary of the Social Security Board. I have been studying the question of health insurance for the past fifteen years and wrote my doctor's thesis on that.

SENATOR DONNELL: You hold your Ph.D. from Radcliffe? DR. WILSON: I hold my Ph.D. from Radcliffe, although I got my baccalaureate from George Washington University in Washington. Under the terms of S. 1606 the liberality of the medical benefits is limited only by the amount of money in the account and the desires of the Surgeon General, and the ambiguity of section 212 makes it uncertain whether the amount of money in the account places a valid limit on the expenditures. It has been the experience in all countries with compulsory health insurance systems that competition between administrative agencies and/or political pressure have forced inadequate benefits to become more and more adequate as the years pass. The political pressure which will be exerted toward the same goal here will be tremendous, since 85 per cent of the population will be covered. What, then, will be the cost of adequate benefits? Again it is within the power of the Surgeon General and/or the Federal Security Administrator to decide. They will have practically dictatorial control in fixing the fees to be paid to doctors and hospitals. The bill adjures them to pay "fair, reasonable and equitable compensation." The proponents of the bill contend that many doctors will get more than they do today. If that is the case, it hardly seems probable that on the average the compensation to doctors and hospitals will be reduced. On that assumption it is fair to cite recent estimates of what adequate benefits would cost. Estimates of the annual cost of the medical-hospital benefit range from $16 per family to $66.97 per capita, but there is a decided concentration around a model value of $25 to $27. The Heller committee reported that $24 was the minimum for good care.

SENATOR DONNELL: Pardon me, Dr. Wilson. You mean per individual? DR. WILSON: Yes. Per individual. The Lee-Jones estimate was—

SENATOR DONNELL: And the figure, the model value of $25, you are likewise referring to the cost per individual? DR. WILSON: Per individual, yes. The only per family estimate I have here is the $16 of the Department of Agriculture. The Lee-Jones estimate was $25.30. The Permanente Foundation found that it cost about 50 cents a week to finance the medical cost for a worker in the Kaiser shipyard at Oakland, Calif. This was the same figure that the Heagerty committee reported to the Parliamentary committee in 1943. In 1939 the Bureau of Medical Economics made a scientific study of the costs and derived a value of $26.55. The Ross-Loos Clinic and the Trinity Hospital Clinic in Little Rock, Ark., both charge their members $2.50 a month. From this it seems patent that medical and hospital care alone will cost about $25 a year of 4 per cent of the worker's covered wage. This, by the way, is the cost of the La Guardia plan for New York City employees.

The cost of an adequate dental benefit is not so certain. It is true that in the early years of the system fully adequate benefits would not be possible because of lack of personnel, but with governmental scholarships and adequate compensation guaranteed dentists, this lack will be of comparatively short duration. How much will an adequate dental benefit cost a year? The Heller committee says $20; the Lee-Jones estimate is $11. The Beck-Jessup survey indicates that 1 per cent would be enough for routine care but that 5 or 6 per cent would be necessary if full repair work is included. An estimate of 2 per cent seems extremely moderate, but even this would entail an overall charge of 6 per cent in toto under present conditions. But conditions change. In England the per capita medical cost doubled from 1917 to 1927. In Germany it was nine times as great in 1930 as it was in 1885. The same factors which led to increasing costs there are present here.

Besides more and more adequate benefits, the population is aging, and Dr. Michael M. Davis has estimated that people over 65 require twice as much care as younger people do. Doctor-demanding disabilities, such as influenza, accidents, nervous diseases and chronic troubles, are increasing. Moreover, the concept of "adequate care" is becoming more and more expensive. Finally, the introduction of a health insurance system increases the demand for treatment. Workers want to get their money's worth. In fact, a group of German doctors estimated that before the war two thirds of their time was consumed by patients who were not really ill.

It is not improbable that before the medical costs are stabilized they will amount to at least 9 or 10 per cent of the covered payroll. Moreover, there will probably be a wage loss benefit which, with the invalidity benefit, will cost 2 per cent of the payroll at the beginning and at least twice that ultimately. The unemployment compensation will cost another 2 per cent. Actuaries estimate that the old age and survivorship benefit will cost 12 per cent by 1990. This means that more than one fourth of the payroll will be neces-

sary to finance social security alone. Other expenses of the government will amount to at least $30,000,000,000, and there is the huge debt to be retired. If the governments, state and federal, take one fourth of the national product, we cannot have an expanding economy. It is only through such an economy that the American workers can hope for a rising living standard on a firm foundation.

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SENATOR MURRAY: In your article in *Barron's Weekly* I noticed that you state, and I quote, "It is not surprising that the workers distrusted this type of medicine. In 1936 about 600,000 British workers distrusted this type of medicine. In 1936 about 600,000 British workers renounced their right to medical care under the insurance system by failing to register on the panel." That is one statement you made? DR. WILSON: Yes. I have forgotten what the reference was.

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SENATOR MURRAY: Now, I have some statistics here from the annual report of the British Ministry of Health. DR. WILSON: Yes.

SENATOR MURRAY: It shows that in 1936 the situation over there was different. And I would like to call your attention to this. This is entitled "England and Wales, 1936, Distribution of Number of Insured by Method of Receiving Medical Benefits." DR. WILSON: Yes.

SENATOR MURRAY: And then it proceeds to say "Total" number of insured by method of receiving medical benefits 16,320,000, 100 per centage.

"On lists of insurance practitioners" there were 15,732,597 people, or 96.4 per cent.

"On lists of approved institutions" there were 152,606 or 0.9 per cent.

"Making their own arrangements" were 14,643, or 0.1 per cent.

"Not yet selected the method of receiving treatment" were 420,154, or less than 3 per cent.

That is the statement issued by the Ministry of Health.

DR. WILSON: I had not seen that statement. I am interested in it.

SENATOR MURRAY: If you had seen that statement before you wrote this article of yours you would have given consideration to this official statement? DR. WILSON: I certainly would have.

SENATOR MURRAY: It appears that the 600,000 to whom you refer as "renouncing their rights" are simply insured persons who have not as yet selected a panel doctor but may do so at any time in case they require medical services. Is that true? DR. WILSON: I would have to go into that a little bit more.

SENATOR MURRAY: You say there are 600,000 that renounced their rights? DR. WILSON: Yes.

SENATOR MURRAY: Those 600,000 could at any time come in and select a panel doctor and get their medical care. DR. WILSON: If they choose to.

SENATOR MURRAY: I wish also to call your attention to the fact that in 1936, the year to which you refer, less than 3 per cent of the insured failed to register, indicating the great popularity of the program. Did you know that less than 3 per cent had failed to register? DR. WILSON: Well, though you would say this is gossip, I have heard it on good authority.

SENATOR MURRAY: In your article in the *Christian Science Monitor* of February 9, on foreign health insurance, you stress the practice of approved societies in England of granting additional benefits and conclude with the following words: "These generous benefits and the ever higher morbidity rates have resulted in a decided increase in the per capita costs." DR. WILSON: Yes.

SENATOR MURRAY: Do you know under what circumstances approved societies furnishing insurance are able to provide additional benefits? DR. WILSON: Why, my understanding is that these approved societies have furnished quite a number of additional benefits. I remember that two thirds of the workers had access to dental benefits in 1942.

(Senator Pepper introduced some statistics relative to the British system.)

SENATOR MURRAY: I wish to state that the statistics I placed in the record a moment ago from Great Britain come from the Exchequer and Audit Department, National Health Insurance Fund Accounts, 1917-1938. I also ask to have put in the record at this point another piece of statistics taken from the Annual Reports of the Ministry of Health. "Per Insured Costs under British Health Insurance for Sickness, Sickness and Maternity and Disablement—England and Wales, 1921-38."

MAY 23, 1946

HON. JAMES E. MURRAY Presiding

PRESENT: Senators Murray and Donnell.

Statement of Dr. R. L. Novy, President, Michigan Medical Service

DR. NOVY: The administration and operation of a medical care plan is much more complex than the operation of a hospital care plan because of the wide variety of services that must be covered and the number of persons (doctors of medicine) who must render individual services under the plan. A hospital care plan provides for relatively few services offered by relatively few institutions, whereas a medical care plan encompasses hundreds of services offered by thousands of individual doctors. The problem of the medical care plan is therefore that of gaining actuarial experience covering a wide range of services and of arranging for the participation of many doctors. While it was not the first medical care plan sponsored by the medical profession, Michigan Medical Service happened to develop procedures which have made it the most successful of the sixty-three doctor-sponsored nonprofit medical plans now in operation. The procedures developed in Michigan consequently have been accepted as a pattern for many other plans now operating or being organized. Michigan Medical Service now has 853,151 subscribers and has paid over $15,000,000 to doctors for services provided in 317,147 cases (as of April 30, 1946). One of every six residents of Michigan is protected by the plan, and the growth in number of subscribers last year alone amounted to 140,815 persons. At that point, I would interject and make the statement that throughout its organization the Michigan Medical Service has never had any formal advertising whatsoever.

The existence of Michigan Medical Service provided a convenient means for meeting the needs of veterans with service connected disabilities. In Michigan thousands of such veterans have been permitted to go to their own physicians rather than to a veteran's facility for examinations or treatments. Michigan Medical Service pays the doctors for these cases just as it makes payment for services provided to regular subscribers and in turn is reimbursed by the Veterans Administration. Not only has this system helped relieve the great pressure on the veterans' facilities, but it also has made it much easier for many veterans to receive needed care. In addition, Michigan Medical Service is now experimenting with measures which would give relief recipients and welfare clients the same sort of personal service as that being provided to Michigan Medical Service subscribers and to veterans.

Michigan Medical Service is the outgrowth of studies begun early in the 1930's by the Michigan State Medical Society and by various county medical societies in Michigan. The studies included an examination of the British panel system by representatives sent to England for that purpose. It was necessary to secure enabling legislation in Michigan, however, before the program could be put into operation. This legislation was passed during 1939, and Michigan Medical Service began operation on March 1, 1940. It has been in operation six years. It first offered a complete medical care program covering medical services rendered in the patient's home, the doctor's office and the hospital. The objective of the doctors of Michigan, in other words, was to provide a medical care program that was complete in every respect. In the absence of actuarial data, the rate for this complete medical care program was set at $4.50 a month for a full family—a figure which proved to be barely half the actual cost of providing service to the average family. In spite of this half-cost figure, the program attracted only negligible public interest. There developed almost immediately a considerable public pressure for protection against the costs of only major illness, and in response Michigan Medical Service developed a program that provided for surgical care in hospital cases. In other words care for catastrophic illnesses rather than for minor illnesses was the demand. In twenty-seven months more than 350,000 persons were enrolled for this limited or surgical protection. During the same period the maximum number enrolled under the complete medical care program was only 7,375 persons. Because of lack of public interest, the complete medical care program was discontinued in June 1942. It is, however, still the intention of Michigan Medical Service to broaden coverage as rapidly as there is evidence of adequate public interest. In order to determine public interest, a survey utilizing scientific sampling methods and involving personal interviews with nearly 5,000 persons throughout Michigan was undertaken during June and July of 1944. The survey showed that the people had definite interest in a program providing for medical care as well as surgical care in hospital cases, and Michigan

Medical Service consequently has developed added protection of this type. The survey also showed that the residents of Michigan still were not interested in a program covering the doctor's services in his office and in the patient's home.

I will call your attention to the fact that over two to one of the people of the state of Michigan were in favor of a voluntary prepayment plan in contrast to a government-handled program.

While it maintains a separate corporate identity, Michigan Medical Service has joined with Michigan Hospital Service, the Blue Cross Plan providing for hospital care, in the development of a joint health program. Thus the subscriber enrolls simultaneously for hospital, surgical and medical care, makes single regular payments and carries a single identification card, which, on display to the doctor and to the hospital admission clerk, procures service for the subscriber.

Thus far the great majority of subscribers to the Michigan program have been employees in business and industrial establishments. Two years ago Michigan Medical Service and Michigan Hospital Service began experiments and research looking toward the opening of enrolment to every resident of the state who wished this protection. For the enrolment of farmers a very active program is under way. Nearly 400 farm groups already have been enrolled through Farm Bureaus, Granges, farmer cooperatives and the Farm Security Administration. For the enrolment of the self employed and others who do not belong to an eligible group, Michigan Medical Service and Michigan Hospital Service undertook last year a program of community enrolment through which interested persons in every part of the state periodically will be given the opportunity to obtain protection through these two organizations.

For persons who cannot afford to pay, Michigan Medical Service and Michigan Hospital Service are seeking a means of cooperating with the government whereby "wards of government" and the indigent will not be segregated in charity facilities but will be entitled to the same sort of service as any subscriber and, for all practical purposes, will be indistinguishable from subscribers paying their own way. The program providing for the care of veterans in service connected cases offers a suggestion as to how this protection may be realized.

Michigan Medical Service and Michigan Hospital Service also are undertaking long range planning and have joined with other health groups in the establishment of the Michigan Health Council, which has coordination and planning as a primary function.

This body has established five objectives: complete health prepayment service for the self supporting, cooperation with government to furnish health care for those unable to pay, improvement of health facilities and standards, health education of the public and national coordination of health activities.

Michigan is a single state and cannot speak for the rest of the nation. However, it is believed that the grass roots approach which is highly sensitive to public demand and local requirements has been fundamentally responsible for the development of the Michigan plan. It is characteristic of the more or less spontaneous growth of developments such as these that they spread very rapidly, with each locality throughout the nation borrowing the best features of local accomplishments elsewhere. Thus a number of the features of the Michigan program have been adapted elsewhere in the nation, just as the Michigan program has borrowed the successful features of similar plans in other parts of the country From our experience in Michigan we are certain that a true spirit of cooperation between voluntary health care organizations and governmental health agencies can produce for the nation the most effective, enduring and progressive system of health care. Voluntary health organizations should not attempt to do the whole job any more than should government attempt to do so, for the reason that any monopoly of health services, whether economic or otherwise, inevitably will lead to degeneration of the entire system. For greatest continued progress it is imperative that there be maintained the sort of health care system which is characterized by a proper spirit of competition and by the existence of natural checks and balances in the best American tradition.

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We have in existence at the present time the most successful portion of our plan, which is the surgical plan. This surgical plan includes all operative procedures while the patient is within the hospital. The surgical service, cost of professional services for doctors of medicine, surgical operations and a $15 fee for x-rays show that the average cost per month, including the administration fee, and again I call your attention to the low administration fee that we enjoy, is $0.5562; that is to say, 55 cents per month, approximately, which is somewhere around the cost of four packages of cigarets a month.

You will also recall that the statistics of the country at large and of Michigan show that of all the hospital illnesses, general hospitals, two thirds of the cases in those hospitals are surgical, only one third being medical cases. The combination of the medical-surgical hospital care, in other words, payment for medical care whenever in a hospital, was $0.7985. It is a little bit bigger than the other, about 5½ packs of cigarets a month. If we are to translate these same comparable figures, the over all care costs of professional services of doctors of medicine, and for all professional services in home, office or hospital, based on our experience with our low overhead, it would cost $2.62 per month.

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A great many statements have been made in regard to this bill as to the benefits that are going to accrue to the public at large from the measure. Wild statements as to the tremendous benefits that will be obtained by a general overall coverage have been made. Those statements are difficult to prove actually. They are, however, subject to some type of an analysis. It was brought out, I believe, by the chairman of this committee at one time during these hearings that, for individuals whose income was below $1,000, only 2.2 doctor calls per year were received, and that those who were below the $4,000 level received three doctor calls per year, but those whose incomes were above, in the wealthy class of $10,000 per year, received as many as five and one-half calls per year.

You will recall from our experience in Michigan under a plan that allowed the full liberal use of medical care, that the people in Michigan not only used all that was needed but exceeded it, requiring 6.6 calls per year. That is a figure definitely higher than the wealthy people of the country use. How much of that is needed? The same figures that were quoted here were quoted from the Public Health Service data, and I have a chart that I believe is of interest to any one who is considering this problem. It is compiled from two sources: one, the United States Public Health Service data; the other, the United States Bureau of Labor Statistics. They approach the problem from two different angles and they arrive at a conclusion that is strikingly similar.

United States Public Health Service data indicate that at the level of about $1,800 per year for a family, adjusted to 1943 prices, the peak of health is attained, and that thereafter no matter what the income of that family is, the health of that family is not increased. In other words, the impression is given widely that if there is plenty of available medical help, efficient medical help, that does not necessarily mean a definite improvement in health. These figures would show that if the income of $1,800 per year is reached there is sufficient income available to that family to utilize all that is necessary to maintain health as good as that maintained by the millionaire who requires plenty of coddling and extra attention, and that, conversely, the millionaire is no more healthy than the man of the $2,000 income group.

The other figure that is present in this chart, from a different source and a different angle, is the United States Bureau of Labor Statistics data, which show that the health and morale maintenance budget is at the same point. In other words, the question of maintaining health is in the group that is below the $1,800 income for the family level.

If one is looking to the improvement of the health of the people of the United States, his entire attention should be directed to that group below the $1,800 family level. If he is looking for convenience of providing an insurance plan or forcing an insurance plan on members higher in the economic bracket than that, that is another thing. But any impression that is given the public that this bill or any bill that is going to provide excess medical care to individuals above that $1,800 budget is a false impression.

We are also asked in this bill to provide a governmental type of supervision of medical care. There seems to be considerable difference as to how much the supervision will amount to. We believe that the supervision will be considerable. These plans, similar plans, of supervision of medical care, have been present in other countries.

These figures are quoted from the last available figures from the League of Nations' epidemiologic data for the years 1935, 1936 and 1937. Chicago and New York, with 11,000,000 population, have an infant mortality of 42.5 Berlin and London, with a population of 8.3 million, have an infant mortality of 61, 50 per cent, essentially, higher, and they have been under regulation for thirty to sixty years.

Diphtheria is a condition that is very readily susceptible to control; proper control and proper management yield positive results. In my city of Detroit we have had a diphtheria

rate as low as not a single death in a year. In Chicago and New York the average is 1.5 deaths per hundred thousand; in Berlin and London 7.2, roughly, five to six times as much.

Tuberculosis also is susceptible to control. In Berlin and London there are 72.8 deaths per hundred thousand, in Chicago and New York 52.5, the rate being 50 per cent higher in Europe.

Mr. Altmeyer's statement is that the United States is not the healthiest nation in the world. Strangely enough, I agree with him, but his statement is not a correct statement. He is comparing a small nation with a few million people situated in a healthful climate with a nation that has all groups of people and all ranges of climate. He is comparing a small nation such as the northern European nations, where a hookworm would be ashamed to live, with our South, where the hookworm enjoys prosperity. That statement was made without qualification. And it is the type of statement in which figures correctly nationwide are correct. He could show that for a small nation the figures might be better than for the large nation of the United States of America. But his figures, when you compare them as I have done here, with populations in the same zone, the same climatic conditions and essentially the same type of people, do not bear that out, and they do show that the health of the American people is way ahead of that of any comparable section of the world.

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The doctors of the state of Michigan would never strike. But the doctors of the state of Michigan are unalterably opposed to the type of regulation that is inherent in this bill. They believe that it will result in definite deterioration in the practice of medicine. They also believe that under the regulations setup that you are forcing on them a condition quite similar to the regulations now imposed by the OPA, with its possible bad results. I will call your attention again to the fact that, as far as the catastrophic illnesses are concerned, those that call for the outlay or unexpected outlay on the part of the family, the voluntary medical plans may cover these. That is, with the cooperation of government, these voluntary medical plans can give equal care to the hardship level groups. It has done so in the case of veterans. For the strictly indigent such a thing can be accomplished, and the purpose of any governmental handling of the people of this country should be directed solely to the group that is in need of support; that is, the group below the $1,800 family income level.

Statement of Dr. Ira D. McCoy, Bad Axe, Mich.

Dr. McCoy: I am Ira D. McCoy and am practicing medicine and surgery in Bad Axe, the small county seat of Huron County, Mich. I have been practicing my profession for thirty-one years and am now specializing in surgery. My only claim to greatness is the fact that I am a citizen of the United States and served my country overseas as a captain in the Medical Corps in World War I. I am a member of the National American Legion Medical Advisory Committee, but I am not testifying in behalf of that committee. As a matter of fact, I have not been engaged by any group or organization to appear before this honorable Senate Committee of Education and Labor. I have done a great deal of study and research work on Senate Bill S. 1606 and, as a result, am thoroughly convinced that it is the nearest approach that has yet been made to solving the social difficulties of this nation as far as the distribution of medicine and dentistry to our people is concerned.

(Dr. McCoy attacked voluntary insurance, repeating the usual statistics and arguments. He repeated the difficulties of Michigan Hospital Service with the Catholic hospitals. He also attacked the National Physicians Committee.)

(Under questioning, Dr. McCoy stated he is not a member of the A. M. A. and gave reasons.)

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Senator Donnell: Doctor, do you perform operations for osteopaths when they have patients? Dr. McCoy: Yes, sir, I do.

Senator Donnell: Is it not a fact, Doctor, that, regardless of the merits of the matter, there is quite a disagreement between yourself and other physicians in your county as to the propriety of certain of the practices in which you have engaged? Is not that true? Dr. McCoy: No. I would be forced to deny that allegation. I guess you intend it that way.

Senator Donnell: Very well. Dr. McCoy: There are other doctors that do work for osteopaths and solicit osteopaths. Some very prominent friends of mine in Detroit operate in an osteopathic hospital.

Senator Donnell: I was not referring solely to that, Doctor, in regard to the practices. What I had reference to included in part the matter of advertising. Do you advertise any? Dr. McCoy: Definitely not.

Senator Donnell: Have you ever advertised? Dr. McCoy: No, sir. I have never.

Senator Donnell: Who is the president of the Huron County Medical Society at this time? Dr. McCoy: I do not know at the present time.

Senator Donnell: Can you tell us the name of some one of the members of that society? Just one, and his address, please. Dr. McCoy: Dr. C. B. Morden, Bad Axe, Mich.

Senator Murray: Doctor, do you know of similar situations occurring in other parts of the country where doctors are refused permission to operate in hospitals? Dr. McCoy: Oh, yes. That is a common practice. No matter what a man's ability is, hospitals can select and receive public funds and still have closed staffs. I want to hasten to add that that is not true, however, of the Mercy hospitals—of the Catholic hospitals. If a man is qualified to do his work in the hospitals, they will admit him to do so.

Senator Murray: And the complaints are often made by physicians and surgeons against the medical system of cliques in various communities which prevent them from having access to hospitals. Dr. McCoy: I think that is true, Senator, and that is the reason in my article that I advocated the setting up of groups of men in the various specialties so that if a man has been in general practice for a while he can go before that group, and if he specializes in surgery, as I do, he can operate before that group. He can show them he is qualified to become a specialist in that particular specialty. If, for reactionary reasons, or political reasons, or if the color of his hair is not right and they do not want him in their specialty, then, as I have set up, he may appeal. He may appeal to a group that examines in the various specialties that are federally controlled.

Statement of George F. Addes, Secretary-Treasurer, United Automobile Workers

Mr. Addes: I should like to point out that the membership of the U. A. W.-C. I. O. has given unanimous support to the Wagner-Murray-Dingell bill, both in its original and in its present form, by action taken through their elected delegates at the last two national conventions. It may also be of interest to the committee to know that in our union, which is generally considered to be one of the most democratic in the world and where there is the fullest opportunity for the expression of every point of view, not a single objection has been voiced to the position consistently and publicly taken by the union in support of this bill. Fundamentally the reason the auto, aircraft and agricultural implement workers of America want a national health bill is because their own experience has led them to the realization that an unfair and unnecessary financial barrier has been erected between their families and the proper medical and hospital care which they feel should be available to them.

It has been argued that voluntary insurance plans provide the answer to this problem. The Blue Cross plans have been frequently referred to in this connection. Our experience does not confirm this claim. In Michigan the Michigan Medical Service and the Michigan Hospital Service have been established to provide an insurance plan to take care of the health needs of the people. For five years the U. A. W.-C. I. O. has supported these services. Today our members constitute approximately 50 per cent of their subscribers. I believe it to be a fair statement to say that it has largely been due to the support of our union in Michigan that these plans have achieved their present enrolment. However, our decision to support these plans was not made because we believed they provided any real solution for the health problems of our members. Five years' experience with these plans has not changed our opinion. On the contrary, it has reinforced it.

The Hospital Service Plan has been the more successful of the two Blue Cross plans. This success was due to the fact that in most cases total hospital costs have been paid by the service and only in a limited number of cases has the worker been required to pay an additional amount. However, even with respect to the hospital service there are two principal weaknesses: 1. Approximately one out of every five persons in Michigan is covered by the plan. A large proportion of the persons not covered are those who are most in need of the protection. 2. The cost is high (this may account for the fact that a majority of the people have not subscribed to the plan). At present it costs a worker $24 a year for his family for hospitalization. However, the cost is now being increased 40 per cent to $34.20 for the same protection.

The heart of any real health insurance program is the medical protection it provides. Hospitalization is frequently only the end result of lack of early and proper medical care. The Michigan Medical Service has proved completely inadequate to provide for the medical needs of our members. While we have supported the plan because we have felt that it is the best available plan, it has demonstrated to us that voluntary plans are definitely not the answer to the health needs of the American people. The plan has a number of basic weaknesses:

1. It provides for no medical care; only for surgical care and then only under hospital conditions. Surgical care at home or in the doctor's office, no matter how desirable or necessary, is not covered.

2. It provides only limited protection even for the restricted surgical services. The plan pays the doctor on the basis of an established fee schedule. If the subscriber's own doctor is not a participating member of the plan he is not bound to accept the fee schedule of the Michigan Medical Service and he may charge any fee which he feels is reasonable and apply the amount received from the service on his bill. Where the subscriber's doctor does participate in the plan, he may nevertheless charge the subscriber more than the schedule rate if the income of the subscriber and his family is more than $2,500 a year. This income limitation provision has completely destroyed the original objective of the plan. For the past four years most of our members have averaged more than $2,500 income per year. They have discovered that in a very large proportion of the cases they are billed over and above the amount which the doctor receives from the Michigan Medical Service. So the worker finds that his premium has only partly paid for the limited surgical service which the plan provides. As an illustration of this development, in 1941 the average cost to a Detroit worker for an appendectomy was $75. The Michigan Medical Service provided a $75 fee which usually took care of the doctor's entire bill. By 1946 the average cost to the Detroit worker for an appendectomy had risen to $150. The worker today finds that after paying his premium to the Michigan Medical Service he still has a $75 bill to pay the doctor.

3. No real effort has been made to safeguard the interest of the subscriber so far as it concerns the amount of the fee charged by the doctor. The plan is controlled by the doctors and I suppose it is only natural that there has been little inclination on their part to remedy the complaints of subscribers. The grave limitations of the Blue Cross plans are best illustrated by showing the extent to which people have turned to private insurance companies in a hopeful but futile effort to obtain health protection for their families.

I have had prepared, and am submitting to this committee, a table showing premiums received and the benefits paid by the four leading private health and hospital insurance companies which have sold policies in Michigan during 1941-1944, the last four years for which such figures have been published by the Michigan Department of Insurance. I have included similar figures for the Blue Cross plans. I believe that an analysis of these figures justifies the following observations:

1. Although the Blue Cross plans have increased their business from over 3 million dollars in 1941 to over 12 million dollars in 1944, or an increase of approximately 9 million dollars, the private insurance companies have during the same four year period increased their business from over 23 million dollars to over 42 million dollars, or an increase of 19 million dollars. Thus it would appear that the increasing concern of people for an insurance plan which might give them real health protection has resulted in private insurance companies obtaining twice as much of the new insurance business in Michigan as the Blue Cross plans.

2. The private companies pay back to the subscriber an amount which varies from 19 cents to 57 cents for each premium dollar paid in. The average amount which the subscriber recovers from these companies is only 43 cents on his premium dollar. Most of the difference, totaling approximately 75 million dollars in four years, obviously represents excessive operating costs, high salaries, high pressure promotions and huge profits.

3. One private insurance company alone did a business of over 124 million dollars during this four year period, almost four times greater than the combined Blue Cross plans. In its extensive advertising and promotional campaigns this company promises the subscriber complete hospital, medical and surgical care. It plays on the deep desire of people for the complete protection which the Blue Cross plans do not offer. And by holding out this alluring promise to the subscriber and his family, this one company collected in Michigan alone over 124 million dollars in this four year period and paid out in benefits only 52 million dollars.

The table demonstrates that one of the most important results from the increased public interest in medical and hospital insurance plans during the past few years, since the Wagner-Murray-Dingell bill was first introduced in Congress, has been the tremendous increase in the business of private insurance companies, who have thereby reaped phenomenal profits. One can hardly blame them for opposing the enactment of the Wagner-Murray-Dingell bill, since such a development would simply put them out of the health and hospitalization business at their present rates.

It is no coincidence, we believe, that the largest of these private health insurance companies in Michigan has a regular program on a Michigan broadcasting station. They call it "Freedom of Opportunity." You may be sure that they are opposed to what the propagandists call the "socialism" of the Wagner-Murray-Dingell bill. What they mean is that they want the "freedom" which will continue to provide them with the "opportunity" of amassing huge profits out of the mental and physical suffering and the unsatisfied health needs of the people. In this connection I would like to suggest that this committee or some other committee of Congress investigate the extent to which these health insurance companies have financed the tremendous nationwide propaganda campaign against the Wagner-Murray-Dingell bill.

This propaganda, among other things, has sought to make it appear that the Wagner-Murray-Dingell bill would destroy the relationship between patient and doctor and prevent free choice of doctor on the part of the patient. We in the labor unions are not professional people. Most of us do not have the educational background of doctors. But we have studied this bill rather carefully and are convinced that this propaganda is completely without foundation in fact.

While it is true that under certain circumstances a doctor would not be permitted to collect fees from the insurance fund for an excessive number of patients on his list, we do not believe that this necessary administrative limitation destroys freedom of choice of physician.

Frankly we question the sincerity of the medical associations in raising the issue of "free choice of doctor" as one of their principal reasons for opposing the Wagner-Murray-Dingell bill. Workers have good reason to question the sincerity of the medical associations on this issue. For years they have been denied free choice of doctor under the workmen's compensation laws of many states. For example, under the Michigan workmen's compensation law a worker who is injured in his employment must, willy nilly, go to the company doctor for treatment. Our union has sought for years, but unsuccessfully, to have the law amended to permit the worker free choice of doctor. Where were the Wayne County and the Michigan State medical associations in this fight? They never lifted a finger to aid the unions in their effort to obtain free choice of doctor for the worker.

Apparently the medical associations are not concerned about the deprivation of "free choice of doctor" if it is the worker who is deprived of this free choice. They apparently are not alarmed so long as it is the employer who is given the right to choose the doctor for the worker.

Is there any wonder that the workers should question the sincerity of the medical associations when they now cry out that the passage of the Wagner-Murray-Dingell bill will undermine the American system of medicine by destroying "free choice of doctor"? As the workers see it the Wagner-Murray-Dingell bill for the first time would give them the economic freedom to choose a doctor when they need one. That is the free choice that really matters.

If I may, I would like to comment briefly on the Taft bill which has been introduced as a substitute for the Wagner-Murray-Dingell bill and which, I understand, has been referred to this committee.

As far as the Taft bill professes to provide medical services for the American people it no more constitutes a national health program than did the pre-New Deal poorhouse system constitute a social security program.

The Taft bill ditches completely the typically American insurance principle under which a person could obtain benefits as a matter of right because he had made his proportional contribution. It substitutes the despised and degrading "means" test under which a person must prove that he cannot afford to pay for medical services before he or his family can get medical attention.

The propagandists talk glibly of the Wagner-Murray-Dingell bill as undermining American institutions. I can conceive of no more effective means of undermining the morale—the independence—of the American people than by imposing this "means" test on their right to obtain medical care. It is hard enough to be poor without being required to prove it if your kids get sick.

The American Medical Association and certain other organized groups have asserted that the Wagner-Murray-Dingell bill, which would provide medical services through an insurance fund to which every one would contribute, is "communistic." So we are now presented with the Taft bill as a substitute. Presumably these same interests support the Taft bill in the belief that it is free from such contamination and that it represents the highest manifestation of American principles. Are we to believe then that the "American way of life" requires our government to stigmatize an American as a pauper before it can provide him and his family with necessary health protection?

We do not believe there is any alternative to a national health insurance plan if health protection is to be made available to every American, rich or poor alike. But those who still seek such an alternative should find food for thought in the current effort by the miners to obtain a health fund by direct negotiation with their employers. Every one professes concern with the miner's health and agrees that something should be done. Yet the same interests who cry "communism" when a national health insurance plan is proposed cry "private taxation" when an effort is made to obtain an industry fund through the good old "free enterprise" method of collective bargaining.

It is "communism" if the government provides a universal health plan. It is "private taxation" if the burden is cast on the industry through collective bargaining. So, in either case, the answer to the workers is "no."

Yes, you can hardly blame the workers for feeling that "communism" and "free enterprise" are pure propaganda phrases designed to becloud the issue and block the road to a solution to the people's health needs.

We do not believe that either private funds set up in each industry or voluntary plans established on a state basis can solve the problem of the people's health. The cheapest and the only effective solution within the framework of our economic system is in the establishment of a national insurance plan.

(Senator Donnell questioned Mr. Addes on the extent to which the means test is applied under various measures.)

SENATOR DONNELL: Now, Mr. Addes, in your testimony you state at page 4 that for the past four years most of your members have averaged more than $2,500 income per year. Now do you feel that your members therefore are in need of governmental assistance in paying their hospital and medical services? MR. ADDES: I think that there ought to be a plan provided so that they might get this full medical attention and medical care.

. . . . . .

SENATOR DONNELL: Which one of these private health insurance companies is it that has this regular program on the Michigan Broadcasting Station? MR. ADDES: It is the Mutual, I believe; it is the Mutual.

SENATOR DONNELL: Is it not Mutual Health and Accident Association of Omaha? MR. ADDES: Yes, sir.

SENATOR DONNELL: Is that the largest doing business in Michigan? MR. ADDES: It is one of the largest.

SENATOR DONNELL: You make the point that there has been a great increase in these private companies. These private companies provide an accident and health insurance provision that is not covered, do they not, in the Michigan Health Service and the Michigan Hospital Service? MR. ADDES: I did say that they did, but we were unable to obtain a breakdown to show just how much business was written in that respect, although from, I would say, reliable sources the greatest portion of their business is health and accident, as we understand it, but there is no proof as far as the records of the state are concerned. They are not requested to break it down.

SENATOR DONNELL: Now the health and accident, that type of insurance is not given by either the Michigan Health Service or the Michigan Hospital Service? MR. ADDES: I would say it is not.

SENATOR DONNELL: Therefore these private insurance companies are giving services to that extent then that are not given by these two Michigan services? MR. ADDES: But they are giving hospitalization and surgical service as well, and it is difficult, I repeat, to give you a breakdown. They are giving both services.

SENATOR DONNELL: Now, you question the sincerity of the medical associations. I observe that you say "Frankly, we question the sincerity of the medical associations in raising the issue of free choice of doctor." Mr. Addes, have you not found, generally speaking, that the physicians with whom you have come in contact have been sincere men who have been trying to deal honorably with their fellow citizens? MR. ADDES: I would say generally speaking that is true, but the propaganda that they are carrying on against that phase of the bill indicates to me that they are not so sincere as far as really promoting the health of this nation, and they have used the cry that it is going to limit the choice to an individual patient, and yet on the other hand they have not contributed one iota to the limitations in states on workmen's compensation, where an individual must go to a company doctor.

SENATOR DONNELL: Consequently, you question the sincerity of the medical associations, and I take it that you include the American Medical Association. MR. ADDES: Absolutely.

SENATOR DONNELL: And the local county, the Wayne County and the Michigan State Medical Association? MR. ADDES: I do question their sincerity. It would not be fair for me to say that I question the sincerity of every physician and surgeon. I cannot, because I have talked to a good many of them that feel a little different about it and are fearful of expressing their true, honest-to-God opinions on this form of legislation.

SENATOR DONNELL: You have no doubt that these associations, in expressing their views on health insurance, are expressing the views of a great many physicians? MR. ADDES: I am not convinced that they are.

SENATOR DONNELL: You also suggest that this committee or some other committee investigate the extent to which health insurance companies have financed this what you call the tremendous nationwide propaganda campaign against the bill. Do you have any knowledge of contributions that have been made by insurance companies, Mr. Addes? MR. ADDES: Yes, I do not know about contributions, direct contributions, but I illustrated one, if I may get that card. I think the nature of the propaganda that they have put out when they are trying to promote their program is designed against the Wagner-Murray-Dingell bill. They leave the impression in the minds of the average public that they have the answer to the health problem of the nation and that there is no need for legislation in this respect.

I would like just to submit for the benefit of the committee a card that is distributed by the Mutual Benefit Health and Accident Association, the largest exclusive, so they state, health and accident company in the world, "for only a few cents a day we pay your doctor bill up to $3,000 for home, office, hospital calls. Your surgeon up to $150, your hospital up to $6 a day, board and room, plus 100 per cent of your expenses," and so forth.

They are promoting this even to the extent of using the air, trying to capitalize on the desires and the needs of the American people; and the average individual that either receives this card or hears some of their propaganda over the air is led to believe that even their plans are far more superior than the Blue Cross Plan.

While I cannot state definitely that they have contributed directly finances to any particular organization that is doing the job on the Wagner-Murray-Dingell bill, I nevertheless can certainly reach the conclusion that they themselves have been doing a devastating job on the Wagner-Murray-Dingell bill.

SENATOR DONNELL: Mr. Addes, I may have overlooked in what you read there, I do not retain any recollection of your reading any specific mention of the Wagner-Murray-Dingell bill in what you have just read. MR. ADDES: I did not read anything about that. I merely make the statement that this leaves the people, the individuals, under the impression that they have got the answer to all the ills on the health program, and it is designed to do a hatchet job, so to speak, on the Wagner-Murray-Dingell bill.

SENATOR DONNELL: Well, this company has received in premiums, from 1941 to 1944, $124,000,000 according to your table that you filed here. I take it that you mean $124,000,000 from the state of Michigan. MR. ADDES: That is correct.

SENATOR DONNELL: I hold no brief for any company or any association, but, as I see it, what you have submitted there does not show any propaganda, at least expressly so, against this bill. I did not hear you read anything to that effect. MR. ADDES: The point that I am trying to make is simply this: That there is a genuine desire on the part of the people for a health plan, and they have reached a point where they would even accept the insurance plans by private or other similar companies, which in our judgment are inadequate, to say the least.

Statement of Harold Blyer, United Automobile Workers

MR. BLYER: My name is Harold Blyer, a member of the U. A. W.-C. I. O., and I am in an advisory capacity to Mr. Addes on matters of health and welfare for the union members. The question presented by Senator Donnell was in relation to the medical contract presented by the Medical Service Organization; I would like to comment on that, gentlemen. As recently as a month ago in a conference with the members representing the state medical society, at which Dr. Novy was

also present, and the official members of the Michigan Medical Organization, met with myself and members of our union committee to discuss matters relative to the expansion of this particular plan, and also in relation to the income limitation. For several years we have requested the addition of such a program as presented by Senator Donnell in the evidence, a medical program. We have been informed that it is not the desire of the state medical society to proceed in this direction too swiftly, as they had experienced adverse conditions in 1939 and 1940 in the original conception of the plan. We were told that they desire to expand this type of a plan in small select groups, to obtain experienced men in matters of rate and incidental medical experience, and we were expected to withhold any addition to our present contract until such time as the medical society, acting in its annual convention, would determine that a plan would be made available to all groups.

SENATOR DONNELL: You do not question the fact that the Michigan Medical Service issued this contract, which contains this paragraph that I read, starting with the words "medical nonsurgical services limited to a period of thirty days," and so on. You do not question that that is in their contract? MR. BLYER: I do not.

SENATOR DONNELL: So I do not think there is any dispute between us. It is not correct to say that the plan of the Michigan Health Service provides for no medical care; that is not correct, is it? MR. BLYER: Senator, Mr. Addes is representing the statements of the workers of the U. A. W.-C. I. O. There is no plan available to the workers in the U. A. W.-C. I. O. according to that contract.

SENATOR DONNELL: Well, the Michigan Medical Service does provide for medical care in this contract and is not the contract available to you gentlemen? MR. BLYER: It is not, Senator.

SENATOR DONNELL: How about that, Dr. Novy, is it available to them? DR. NOVY: The statement is partly correct and partly not. In order to obtain experience, we felt that it was desirable to go slowly. We were approached not officially but approached to put into effect or consider putting into effect the medical plan for the entire General Motors group, which is a huge mass. And fearful of taking on a large group without actual actuarial experience, we declined to do so, but it is in effect in smaller groups in order that we may obtain adequate actuarial experience and as soon as that actuarial experience is such as to warrant it, it will be available to large groups. But we do not care to take on a huge group in order to obtain that experience in the actuarial field.

SENATOR DONNELL: How many people hold that certificate at the present time? DR. NOVY: I cannot give you that figure offhand.

SENATOR MURRAY: At the present time that plan is not available? DR. NOVY: Not to the General Motors group, but to smaller units.

SENATOR MURRAY: This statement here, then, in which it says that it provides for no medical care, so far as the automobile workers are concerned is correct? DR. NOVY: No, there are many shops in which there are automobile workers who are not the General Motors group in which it is available.

MR. ADDES: I do not know where they do have medical care. I should like to know, or give me a list of the plants which are U. A. W.-C. I. O. where there is medical care granted under the provisions of that contract. The plan does not provide in the event a worker scratches himself, and visits the doctor, to make payment. They will not pay if that individual visits a doctor at his office. In the event an individual has a rash, for example, and goes to his physician and does have the medical plan as covered by the medical plan and makes a call to the doctor's office, the plan does not provide payments. In the event I become ill, and I carry the medical plan, and it necessitates the services of a doctor, I must, as a worker, pay the bill. I do not know of any of our local unions or automobile workers where a house call is paid for under the plan or an office call for a rash or for any other necessity.

SENATOR DONNELL: Do you have anything further to say, Doctor, along that? DR. NOVY: In my report we had such a plan, and it was explained to you that we did have, and we found out in that plan that the cost is so prohibitive to the public, even at the premium that was charged, the cost was twice as much as the income therefor, and we also found out that the number of visits that were used under that plan was 6.6 per year, higher than the rate at which the wealthiest clientele in the United States utilizes a doctor. In other words, very definitely under that type of plan, without restrictions, there was an abuse, abuse on the part of the patient, and abuse on the part of the doctor, in which both contributed to having as many as possible in order to, in one case, inflate the ego, and in the other case possibly the pocketbook and a combination thereof.

SENATOR DONNELL: Could you send to our committee a statement of how many persons hold contracts with medical services provisions that I have read? DR. NOVY: We will do that.

Statement of L. George Grupe, D.C., First Vice President, International Chiropractors Association

DR. GRUPE: My full name is L. George Grupe. I represent the International Chiropractors Association. The International Chiropractors Association respectfully requests a consideration as to the essentiality of the science of chiropractic, within provisions of any enacted measure submitted in an economic bill of rights—such as the National Health Act of 1945. There is no desire on the part of the membership of the International Chiropractors Association to avoid, or evade, any duty and obligation incorporated in a health program. There is but a desire to assist in the right of each citizen to adequate care and the opportunity to enjoy good health. Thus, chiropractors again contend that a legal revaluation of the science of chiropractic is essential to a national health program. A new medical order is inevitable—the chiropractor has proved competent, and the results demonstrate merit of the science. Sick people get well—the practitioners of chiropractic have been trained and scientifically prepared as chiropractors. The public has been satisfactorily served and desire chiropractic services.

What is chiropractic? An extract from *People of the State of Illinois* v. *Love* (1921), 298 Ill. 304, 131 Northeast 809: "Chiropractic is a drugless method of treating ailments of the human body, chiefly by manipulations of the spinal column with the hand. The theory of this system as explained in this record is that when the spinal column is in all its parts in place and performing its proper functions and the nerves running therefrom to the various organs and parts of the body are undisturbed and performing their functions, many but not all of the ills to which the human body is susceptible do not and cannot take place."

Insurance companies have recognized the science of chiropractic by permitting to policyholders the services of a chiropractor. Here this afternoon I believe, one of the preceding speakers brought out that chiropractic in Omaha has been growing. That happens to be one of the communities which pays chiropractors. It makes it possible for policyholders to use chiropractic service. In the legislative history of the efforts of chiropractors to obtain recognition and regulation, as to the science, in states and territories of the United States, statistics outline that forty-three states and territories of the United States have, to a certain degree, some with full recognition and control, approved the science of chiropractic. It is significant and important that the first chiropractic statutes were enacted in the states of Kansas and Iowa in 1913.

"Medical care" should provide inclusion of chiropractic. Any national health act must be equitable to all peoples; any national health act must protect all methods of the healing art—drug and drugless. The same manner of equity permitted to the public should reach the practitioner. As stated by President Harry S. Truman, the health plan should proceed "on the basis of their own voluntary decisions and choices." Such freedom should proceed in choice of method and practitioner. Thus, the chiropractors should be included in all reference to practitioners of healing art. There could be no "choice" otherwise.

S. 1606 gives apparent unlimited recognition to medical control. Heretofore the medical profession has held complete control of health—with no particular restraint. The reason for such welfare measure is partly occasioned by revelations of Selective Service.

If chiropractic is excluded from the bill, the purpose of the bill will be defeated. If all are going to be treated alike, this should include chiropractic.

SENATOR DONNELL: Approximately how many chiropractors are there in the United States? DR. GRUPE: Twenty thousand.

SENATOR DONNELL: Is there any estimate available as to the number of patients that those 20,000 treat? DR. GRUPE: Yes, sir. SENATOR DONNELL: Could you tell us, approximately, the best estimate you have of that? DR. GRUPE: I believe I have the estimate of the number of visits made yearly, which runs into close to 80 million. I believe that was made by the government report on income taxes.

SENATOR DONNELL: You are located in San Angelo, Texas, and are practicing your profession there. Where did you take your study? DR. GRUPE: Yes, sir. I studied at the Palmer School of Chiropractic, Davenport, Iowa.

(To be continued)

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

CALIFORNIA

Hospital Week Dedicated to Blood Bank.—The San Francisco Hospital Conference, an organization comprising sixteen major hospitals in San Francisco, dedicated the week of May 6 to the Irwin Memorial Blood Bank. The mayor of San Francisco, Roger D. Lapham, opened the program with a request to the public give a blood donation to the Irwin Memorial Blood Bank. Special programs were broadcast over radio stations, and newspapers and stores cooperated in using window displays on the blood bank.

New Medical Journal.—Plans are being formulated for the publication of a medical journal by the Los Angeles County Medical Association. The first issue will appear in the fall, or, at the latest, by January 1947. The editor and managing editor of the *Bulletin* of the Los Angeles County Medical Association have been asked to assume similar responsibility for the new publication with the aid of a committee consisting of Drs. Howard W. Bosworth, Los Angeles, chairman, Donald A. Charnock, Los Angeles, Eugene F. Hoffman, Los Angeles, Harold K. Marshall, Glendale, and Joseph M. de los Reyes, Glendale. The journal will be purely scientific in character. It will carry no organizational material. Such matter will be carried in the *Bulletin*, which will still be published to inform members concerning programs, association activities, membership changes, minutes of executive groups, economics and other nontechnical subjects.

ILLINOIS

Health Education Program.—A workshop in health education opened at the Southern Illinois Normal University, June 10, to continue until August 3 and one at the Illinois State Normal University, June 29, to continue until August 23. The workshops permit the participants to develop specific projects based on their own teaching experience and, by comparisons and discussions, stimulate interest regarding the health of the whole child, the whole school and the whole community.

Chicago

The Carl Hedblom Lecture.—Dr. Cameron Haight, professor of surgery, University of Michigan Medical School, Ann Arbor, recently delivered the eighth Carl Hedblom Lecture at the University of Illinois College of Medicine, on "Congenital Atresia of the Esophagus with Tracheo-Esophageal Fistula." The lectureship, sponsored by Iota chapter of Phi Beta Pi Fraternity, perpetuates the memory of the late Dr. Carl A. Hedblom.

Personal.—Mr. Charles E. Nyberg, since 1938 an associate in the Bureau of Medical Economics of the American Medical Association, has resigned to become assistant to the executive secretary of the American College of Radiology, effective June 30. Since Mr. Nyberg returned from three years' service in the navy, he has been in temporary charge of the Bureau of Medical Economics and collaborating with the staff of the Council on Medical Service and Public Relations. Mr. Nyberg was released from the service with the rank of lieutenant, U.S.N.R.

University of Chicago Medical Alumni.—The second annual meeting of the Alumni Association of the University of Chicago School of Medicine was held at the Albert Merritt Billings Hospital, June 10, under the presidency of Dr. Victor E. Johnson. The scientific program consisted of the following:

Drs. Peter V. Moulder Jr. and Charles B. Huggins, Estrogen Production by Sertoli Cell Tumors of the Testis.
Drs. Edward H. Storer and Lester R. Dragstedt, Vagus Section for Peptic Ulcer.
Drs. John D. Arnold, John H. Edgcomb and Alexander Brunschwig, Sulfhydryl Stimulation and Inhibition of Tumor Growth.
Dr. Leon O. Jacobson, Effects of Nitrogen Mustard on Neoplastic Diseases of Blood Forming Tissues.
Drs. Howard W. Owen, Edward H. Senz and Hilger P. Jenkins, Control of Hemorrhage from the Great Vessels and the Heart by Gelatin Sponge.

New officers chosen at the meeting include Dr. Hilger P. Jenkins president, Dr. William C. Drennan vice president, Dr. William B. Tucker secretary and Dr. James R. Willson treasurer. It was decided that the quarterly alumni bulletin would be expanded, with the greatest emphasis to be placed on the scientific section. Dr. William H. T. Murray was appointed editor to succeed the retiring editor, Dr. Francis B. Gordon.

Physicians Honored.—Dr. Ole C. Nelson, medical director of the Cook County Hospital, was guest of honor at a dinner at the Congress Hotel, June 20, given by more than one hundred friends and associates in recognition of his completion of thirty-five years' service to the hospital. Dr. Nelson has been medical director for ten years. An informal dinner was held at the Palmer House, June 22, honoring Dr. and Mrs. Raymond B. Allen. A portrait medallion of Dr. Allen, executive dean, Chicago colleges of the University of Illinois and dean of the medical school, was unveiled and presented to Arthur C. Willard, LL.D., Urbana, Ill., president of the university. Dr. Allen has announced his resignation to become president of the University of Washington, Seattle (THE JOURNAL, March 9, p. 657).

INDIANA

Conference on Rural Medical Care.—Plans are being developed to hold a statewide conference at Purdue University, Lafayette, in August of medical and agricultural leaders to consider the problem of rural medical care. The proposed conference would be under joint sponsorship of the rural medical care committees of the Indiana State Medical Association, the Indiana Farm Bureau, the department of agriculture, Purdue, the Indiana State Board of Health and various health organizations.

IOWA

New Director of Serum-Plasma Center.—Dr. Paul R. Slater, Burlington, on May 1, became director of the Serum-Plasma Center and associate director of the division of preventable diseases of the Iowa State Department of Health. Dr. Slater, who was recently separated from service with the rank of lieutenant colonel, in 1941 served as medical director of the Interstate Malarial Survey for Illinois, Minnesota, Wisconsin, Missouri and Iowa.

KANSAS

Special Society Election.—Dr. Harry M. Gilkey, Kansas City, Mo., was on May 6 elected president of the Kansas City Southwest Pediatric Society. Dr. Eugene J. Schwartz, Springfield, is vice president and Dr. Leland N. Speer, Kansas City, secretary-treasurer.

S. J. Crumbine Honored.—Dr. Samuel J. Crumbine, Jackson Heights, N. Y., formerly general executive of the American Child Health Association, was the guest of honor at the annual meeting of the Kansas Public Health Association dinner in June. Dr. Crumbine was secretary and executive officer of the Kansas State Board of Health for nineteen years and served for six years as a member of the board.

LOUISIANA

State Society Officers.—Dr. Gilbert C. Anderson, New Orleans, was chosen president-elect of the Louisiana State Medical Society at its 1946 meeting in May, and Dr. Rhett G. McMahon, Baton Rouge, was installed as president. Vice presidents are Drs. George W. Wright, Monroe, Wilton P. D. Tilly, New Iberia, and Jason P. Sanders, Shreveport. Dr. Paul T. Talbot, New Orleans, is secretary.

MICHIGAN

Special Society Election.—Dr. J. Duane Miller, Grand Rapids, was named president-elect of the Michigan Association of Industrial Physicians and Surgeons recently. Dr. Arbie L. Brooks, Detroit, chief surgeon for the Fisher Body Corporation, was installed as president. Dr. Millard Shellman, Grand Rapids, is secretary-treasurer.

Myra Babcock Honored.—On May 24 at its regular meeting the staff of the Grace Hospital, Detroit, presented Dr. Myra E. Babcock with a new Oldsmobile, a radio-phonograph and a scholarship fund amounting to $2,000 to be known as the Myra E. Babcock Fund for Student Anesthetists. Dr. Babcock has been director of the department of anesthesia and school for nurse anesthetists for thirty-six years. Dr. John S. Lundy, Rochester, Minn., was the principal speaker.

New Director of Venereal Disease.—Dr. John A. Cowan, recently released from the U. S. Public Health Service, for which he had been serving as director of the venereal disease control division and acting director of the division of local health service, Oklahoma State Department of Health, has been appointed director of the bureau of venereal disease control of the Michigan State Department of Health, Lansing, effective June 1. Dr. Cowan graduated at the University of Minnesota

Medical School in 1931. He was for four years director of the division of preventable diseases of the North Dakota State Health Department and three years as director of the Woodbury County (Iowa) Health Department.

Anonymous Gift of $90,000 for Psychiatry.—An anonymous grant of $90,000 has been announced by Wayne University College of Medicine, Detroit, to underwrite an expansion program in the department of psychiatry for a period of five months. The donor indicated that prior to the end of the period the program will be reviewed to determine whether or not the grant should be continued. The funds will be administered through the Wayne University Foundation, a nonprofit corporation founded to act as trustee for the receipt, management and disbursement of grants and gifts to Wayne University. Dr. John M. Dorsey, Detroit, director of the child guidance division of the Children's Fund of Michigan, has been named special professor and chairman of the department of psychiatry at Wayne (THE JOURNAL, June 29, p. 768).

MINNESOTA

Personal.—Dr. Gaylord W. Anderson, Minneapolis, recently released from army service, has returned to his position as director of the school of public health at the University of Minnesota. Dr. Richard V. Ebert, Brookline, has been appointed professor of medicine and will devote his time between teaching and research.

Abortionist Sentenced.—On May 17 Elmer C. Hultgren was sentenced to a term of not to exceed four years in the state prison at Stillwater by Judge Lars O. Rue. Hultgren had pleaded guilty to an information charging him with the crime of abortion. He was sentenced to serve the first year in the Minneapolis Workhouse, after which time he will be placed on probation for a period of three years.

Ninety Years of Age.—Dr. Christopher Graham, a member of the first football team of the University of Minnesota in the fall of 1886 and the first intern at St. Mary's Hospital, Rochester, observed his ninetieth birthday April 3 in Rochester. Dr. Graham graduated at the University of Pennsylvania School of Medicine in 1894. The *Journal Lancet* reports that he retired several years ago and became a breeder of Holstein cattle.

MISSOURI

Personal.—Dr. Otho S. Pate, North Kansas City, has been appointed coroner of Clay County.——Dr. and Mrs. Owen W. Krueger, Kansas City, celebrated their sixtieth wedding anniversary April 14.

MONTANA

Personal.—Dr. William F. Cogswell, Helena, for thirty-three years executive secretary of the Montana State Board of Health, has become an honorary life member of the U. S. Public Health Service. The honor was conferred at a recent banquet in Washington, D. C. Since his resignation from the state board he has been preparing a history of Rocky Mountain spotted fever (THE JOURNAL, April 20, p. 1182).——Dr. William F. Hamilton, Havre, has been appointed health officer of Hill County.

First Director of Tuberculosis Control.—Dr. Arthur R. Rikli, who has been serving as assistant surgeon with the U. S. Public Health Service in Washington, D. C., has been appointed the first director of the newly created division of tuberculosis control of the Montana State Board of Health, according to *Montana Health*. Dr. Eloise M. Larson, Great Falls, president of the Montana Tuberculosis Association, presented a $25,000 mobile unit, purchased by the tuberculosis association, to Dr. Rikli, and Governor Sam C. Ford was given the first x-ray on the new machine. The unit will be used to give examinations at state institutions to state industrial workers and local communities. Dr. Rikli graduated at Rush Medical College in 1907.

NEBRASKA

State Medical Election.—Dr. George E. Charlton, Norfolk, was named president-elect of the Nebraska State Medical Association during the 1946 meeting of the association in Lincoln, May 6-9, and Dr. Earle G. Johnson, Grand Island, was installed as president. Other officers include Drs. William R. C. Neumarker, Columbus, and Hall H. Humphrey, Daykin, vice presidents.

NEW YORK

Expansion of Child Guidance Clinics.—On June 15 the New York State department of mental hygiene announced a program of expansion of its child guidance clinics for the prevention of maladjustment, delinquency and mental illness. The additional service is made possible by a $120,000 increase in the budget voted by the recent legislature. In a statement to the press Dr. Frederick MacCurdy, New York City, state commissioner of mental hygiene, said that three new child guidance clinic teams would be set up as the first step in the expansion program and that four more would follow as soon as personnel becomes available. Four clinic teams are already operating. The program is under the direction of the division of prevention of the state mental hygiene department, of which Dr. Donald W. Cohen, Albany, is director. The expanded program calls for the appointment of seven clinic teams in addition to the four teams now in operation. Each team will be made up of a psychiatrist, a psychologist, two social workers and a stenographer. The formation of these teams will bring the total for the state to eleven and will result in the opening of three new offices in the Middletown, Ogdensburg and Syracuse areas and two additional teams in the Albany and Buffalo areas. The difficulty in securing competent trained personnel at this time makes it impossible to state when the program will be in complete operation. Three new teams are expected to be at work in September. Teams now work out of central offices in Albany, Binghamton, Buffalo and Utica and provide clinic service in one hundred and ten cities and towns throughout the state. It is more important for the clinics to treat a limited number of cases than to diagnose many, it was stated, and clinic policy was changed two years ago to emphasize therapy rather than mere diagnosis. To accomplish this the child must make regular and frequent return visits to the clinic. The expanded program will make this possible by providing one half or one full day of clinic service per week at each location rather than the monthly, semimonthly or even bimonthly service formerly provided. A program of education aimed at encouraging local communities to develop and finance their own mental hygiene and child guidance clinics is being planned and will be inaugurated as soon as possible. The clinic personnel of the department will also assist in training doctors from the state schools for the mentally deficient and state hospitals for the mentally ill who wish to specialize in child guidance work. In addition to their work with the children themselves, the clinic personnel maintain contact with the parents and aid them in dealing with children's problems. They have also lectured to New York state veterans guidance counselors and they assisted draft boards in psychiatric and psychologic examinations prior to acceptance of men in the armed forces. In the past three years they have increased their services to the state departments of health, education, correction and social welfare. A close relationship will be maintained between the child guidance clinics and the state youth commission in its new program, combating juvenile delinquency. Clinic personnel will be advised and consulted on psychiatric, educational and recreational facilities in the areas in which the youth commission operates.

New York City

Howard Taylor Named Professor of Obstetrics.—Dr. Howard C. Taylor Jr. has been appointed professor of obstetrics and gynecology at Columbia University College of Physicians and Surgeons and director of the Presbyterian Hospital obstetric and gynecologic service. Dr. Taylor succeeds Dr. Benjamin P. Watson, who, though retiring from his teaching and administrative positions, July 1, will remain in private practice and continue his affiliation with the Sloane Hospital for Women at the Columbia-Presbyterian Medical Center. Dr. Taylor graduated at Columbia in 1924 and has been serving as professor of gynecology and obstetrics at the New York University College of Medicine. His father, Dr. Howard C. Taylor, has been clinical professor of gynecology at Columbia since 1913.

Faculty Changes at Long Island.—Dr. Rodolph M. Cutino, Brooklyn, has been appointed clinical professor of ophthalmology at the Long Island College of Medicine, Brooklyn. Dr. Charles A. Woerner, assistant professor of anatomy at New York Medical College, has been appointed to a similar position at Long Island, and Dr. Leo A. Harrington, Brooklyn, has been named assistant clinical professor of radiology. Recent promotions on the school faculty include Drs. Morris M. Banowitch, John B. D'Albora and George H. Lordi to clinical professors in the department of medicine; Drs. Morris Glass and Frank P. Light to clinical professors in the depart-

ment of obstetrics and gynecology; Dr. Mortimer A. Lasky to clinical professor of ophthalmology; Florence M. Stone, Ph.D., to assistant professor in the department of bacteriology; Dr. Saverio C. Franco to assistant clinical professor of medicine; Dr. Emil Smith to assistant clinical professor of pediatrics; Dr. Benjamin Rosenthal to assistant clinical professor of ophthalmology, and Dr. Albert J. Ritzmann to assistant clinical professor of surgery.

NORTH CAROLINA

Personal.—Dr. Joseph S. Hiatt Jr., Durham, Statesville, has been appointed superintendent of the Hugh Chatham Memorial Hospital, Elkin, to succeed Charles C. Weaver, D.D., who died March 19.——A portrait of the late Dr. Horace Mitchell Baker, founder of the Baker Sanatorium, Lumberton, and its surgeon in chief until his death Feb. 28, 1945, was presented to the sanatorium by the auxiliary of the institution, March 17.

OHIO

State Medical Election.—Dr. Ralph L. Rutledge, Alliance, was chosen president-elect of the Ohio State Medical Association at its centennial meeting in Columbus, May 7-9, and Dr. Edgar P. McNamee, Cleveland, was installed as president. Dr. Henry P. Worstell, Columbus, was elected treasurer of the society to succeed Dr. John H. Mitchell, Columbus. A total of 2,121 persons attended the meeting, including 1,262 registered members.

Proctologic Society Formed.—The Cincinnati Proctologic Society was recently organized at the Hotel Gibson, Cincinnati, with Drs. Abraham G. Carmel, Cincinnati, as president, John T. Crone Jr., Milford, vice president and Stewart R. Jones, Cincinnati, secretary-treasurer. Founder members include these officers and Drs. Francis M. Oxley, Charles E. Howard, Charles R. Deeds and Alfred C. Ross, all of Cincinnati. The objective of the society is the scientific advancement of methods of treatment and diagnosis of diseases of the anus, rectum and colon.

Distinguished Service Award to Dr. Tuckerman.—At the annual meeting of the Academy of Medicine of Cleveland, May 17, Dr. Jacob E. Tuckerman, Cleveland, was presented with the academy's Distinguished Service Award. According to the citation, "A list of his services to the academy is lengthy and reflects his unselfishness and zeal in the affairs of the academy." Dr. Tuckerman has served on various committees for the academy in addition to having been president in 1924, vice president in 1919, secretary-treasurer from 1912 to 1918, member of the council at four different times and member of the board of directors at seven different times.

Health Program for Ohio.—At the centennial meeting of the Ohio State Medical Association in Columbus, May 7-9, the house of delegates adopted a health program for the state. The twenty-five subjects covered in the schedule forming the basis for the proposed program include the following: economic improvement, improved housing, malnutrition, sanitation, smoke abatement, communicable diseases, venereal diseases, tuberculosis control, health education, physical examination, cancer and chronic diseases, mental disease program, rehabilitation of the handicapped, recreation facilities, school health programs, industrial health, medical care for the needy, state health department services, maternal and child health services, hospital facilities, prepaid hospital care plans, prepaid medical care plans, care of disabled veterans, rural health and medical education.

TEXAS

Physicians Honored.—Dr. Lorence W. Feller has been named the outstanding young man in Fredericksburg during 1945 and was presented the distinguished service award of the Fredericksburg Junior Chamber of Commerce recently. Dr. Feller, president of Kerr-Kendall-Gillespie-Bandera Counties Medical Society during the past year, was commended for his aggressive civic and business leadership in the city, serving through civic clubs, the Girl Scout organization, his church and other agencies.——Dr. Warren Andrew, associate professor of histology and embryology, Southwestern Medical College, received the 1945 distinguished service award of the Dallas Junior Chamber of Commerce in recognition of his research in gerontology, especially in regard to the microscopic changes in the various parts of the body. Dr. Andrew recently returned from five months as a visiting professor at the University of Montevideo, Uruguay, under the auspices of the United States Department of State.

Mexican Fellowship in Surgery.—La Nacional Compania de Seguros Sobre la Vida, S. A., of Mexico City has made a grant to the University of Texas Medical Branch, Galveston, to establish the Mexican Medical Fellowship in general surgery. Dr. de Hoyos, Mexico City, has been appointed fellow in accordance with the terms of the grant and will hold the position for one year. It is the hope of the company that the fellowship may promote an increased appreciation of the importance of closer medical cooperation between Mexico and the United States. The company plans to establish similar fellowships in other medical schools and hospitals in the United States if circumstances warrant.

Changes in Health Officers.—Dr. Earl H. Smith, Texarkana, has resigned as director of the Texarkana-Bowie County Health Unit to go to Tarzana, Calif.——Dr. Duan E. Packard, Kerrville, has been appointed health officer of Kerr County to succeed the late Dr. John D. Jackson, Kerrville.——Dr. David L. Robertson, Wichita Falls, has been named director of the Wichita Falls Health Unit, according to the Wichita Falls *Record-News*. Dr. Robertson, a member of the Wichita Falls city health staff before entering the army, was to take up his new duties immediately on discharge from service. He succeeds Dr. William P. Scarlett, Morrilton, who left last August to become city health director at Little Rock, Ark.——Dr. John G. Daniels Jr., Gilmer, is the new full time director of the Upshur County Health Unit.

VIRGINIA

Neuropsychiatric Seminar.—The week of May 6 was devoted to a neuropsychiatric seminar at the Veterans Administration Hospital, Roanoke. Participants included:

Capt. Daniel Blain, acting director, neuropsychiatric services.
Dr. Robert F. Gayle Jr., professor of neuropsychiatry, Medical College of Virginia, Richmond.
Dr. David C. Wilson, professor of psychiatry and neurology, University of Virginia Department of Medicine, Charlottesville.
Dr. Edwin J. Palmer, neuropsychiatric consultant, Veterans Administration Hospital, Roanoke.

Personal.—William T. Sanger, LL.D., president, Medical College of Virginia, Richmond, was elected president of the Virginia Cancer Foundation, to succeed Dr. Isaac A. Bigger, Richmond. Dr. Julian L. Rawls, Norfolk, was named a vice president.——Dr. Frederick B. Mandeville, associate professor of clinical surgery, University of Maryland School of Medicine, Baltimore, has been named to his former position as professor of radiology at the Medical College of Virginia, Richmond.

Commission Named to Study Organizations Soliciting Health Funds.—A legislative commission was created by the last general assembly to study private organizations which solicit funds from the public for medical care. Members include Drs. Irl C. Riggin, Richmond, state health commissioner, and Julian L. Rawls, Norfolk, president of the Medical Society of Virginia. Representing the Senate are J. D. Hagood and Lloyd C. Bird and the House of Delegates. J. Maynard Magruder, Henry S. Johnson and John Warren Cooke. Mr. Johnson is the newly appointed director of public relations and medical service for the Medical Society of Virginia.

GENERAL

Medical Women Have New Publication.—The *Journal of the American Medical Women's Association* recently made its appearance, the first of the association's postwar plans to be materialized. Scientific material, student news, book reviews and miscellaneous announcements comprise some of the sections in the new publication. Dr. Elise S. L'Esperance, 2 East 61st Street, New York 21, is the editor.

Advisory Council Named for Allergy Fund.—A scientific advisory council has been created for the newly formed American Allergy Fund (THE JOURNAL, June 15, p. 621). Anton J. Carlson, Sc.D., Chicago, professor emeritus of physiology, University of Chicago School of Medicine, is chairman of the council and other members include Dr. Paul R. Cannon, chairman, department of pathology, University of Chicago; Dr. Carl A. Dragstedt, chairman, department of pharmacology, Northwestern University Medical School, Chicago; Dr. Harry Goldblatt, director, Institute for Medical Research, Cedars of Lebanon Hospital, Los Angeles, and Dr. Sanford B. Hooker, professor of immunology, Boston University School of Medicine.

Special Society Elections.—At the 102d meeting of the American Psychiatric Association Dr. Winfred Overholser, Washington, D. C., was named president-elect. Dr. Samuel W. Hamilton, Washington, D. C., was installed as president.

Dr. Leo H. Bartemeier, General Motors Building, Detroit, is secretary-treasurer.——Dr. Philip D. Wilson, New York, was elected president of the National Council on Rehabilitation at its recent meeting in New York. Holland Hudson is secretary-treasurer with offices at 1790 Broadway, New York 19.——Dr. Oliver H. P. Pepper, Philadelphia, was elected president of the Association of American Physicians at its recent meeting, succeeding Dr. Warfield T. Longcope, Baltimore. Other officers included Drs. Alvah H. Gordon, Montreal, vice president; Dr. Joseph T. 'Vearn, Cleveland, secretary, and Dr. Walter Bauer, Boston, treasurer.

Prevalence of Poliomyelitis.—Reports of cases of poliomyelitis for the periods indicated have been received from the division of public health methods, U. S. Public Health Service, as follows:

Division and State	June 22, 1946	June 23, 1945	Median, 1941-1945
New England States:			
Maine	0	0	0
New Hampshire	0	0	0
Vermont	0	0	0
Massachusetts	0	0	0
Rhode Island	0	0	0
Connecticut	2	3	1
Middle Atlantic States:			
New York	7	16	6
New Jersey	4	2	1
Pennsylvania	1	1	1
East North Central States:			
Ohio	2	10	3
Indiana	2	0	0
Illinois	12	2	3
Michigan	0	1	1
Wisconsin	1	0	0
West North Central States:			
Minnesota	1	0	1
Iowa	1	1	0
Missouri	1	1	1
North Dakota	2	0	0
South Dakota	0	0	0
Nebraska	1	0	0
Kansas	7	2	1
South Atlantic States:			
Delaware	0	0	0
Maryland	0	1	0
District of Columbia	0	0	0
Virginia	0	0	0
West Virginia	1	0	0
North Carolina	4	0	1
South Carolina	1	5	2
Georgia	4	5	1
Florida	34	2	1
East South Central States:			
Kentucky	2	0	1
Tennessee	..	2	1
Alabama	16	8	3
Mississippi	4	1	2
West South Central States:			
Arkansas	1	0	2
Louisiana	8	0	2
Oklahoma	5	3	2
Texas	44	39	4
Mountain States:			
Montana	0	0	0
Idaho	0	0	0
Wyoming	0	0	0
Colorado	11	2	1
New Mexico	3	0	0
Arizona	0	0	1
Utah	1	0	0
Nevada	0	0	0
Pacific States:			
Washington	2	0	0
Oregon	1	0	0
California	18	9	7
Total	204	116	116
25 weeks	1,583	1,115	782

Christopher Shaw Joins Sharp and Dohme.—Dr. Christopher C. Shaw, formerly of Bellows Falls, Vt., educational director for the American College of Physicians, has been appointed assistant medical director of Sharp and Dohme, Inc., Philadelphia. Dr. Shaw graduated at the University of Maryland School of Medicine, Baltimore, in 1931. During the war he served fifteen months as flight surgeon on an aircraft carrier in the Atlantic and Pacific theaters and prior to his separation from the service with the rank of captain in October 1945 was appointed chief of medicine at the U. S. Naval Hospital, Corpus Christi, Texas. For seven months before joining Sharp and Dohme's medical research staff, Dr. Shaw was educational director for the American College of Physicians (THE JOURNAL, Dec. 22, 1945, p. 1218).

Science Writing Awards.—The first annual George Westinghouse Newspaper Science Writing Award of $1,000 will be presented in December to the working newspaper man or woman judged to have written the best science story or series of stories this year. The newspaper employing the prize winner will be awarded a citation (THE JOURNAL, May 18, p. 245). Entrants must submit photostats, tear sheets, scrapbooks, clippings or syndicate copy of each story showing the masthead of the newspaper in which the article appeared. The stories will be judged on the basis of clarity of interpretation and initiative used in science reporting. The final selection of the most worthy article is in the hands of the judging committee, whose decision will be final. All entries in the competition must be postmarked before midnight, October 20, but the dateline of the entry must not be later than the evening papers of October 15, and each entry must be accompanied by an entry blank properly executed. Additional information may be obtained from Willard L. Valentine, editor of *Science*, Smithsonian Institution Building, Washington 25, D. C.

Government Services

Research in Medical Science

The U. S. Public Health Service announces the early publication of a new journal, *Research in Medical Science*, to be published by the National Institute of Health. The journal will be issued monthly, with two volumes to the year. Yearly subscription will be $5 domestic, $6.75 foreign. Subscriptions may be placed with the Superintendent of Documents, Washington 25, D. C. Other correspondence regarding the journal should be addressed to the Editor, Research in Medical Science, National Institute of Health, Bethesda 14, Md.

Advisory Editorial Board on Medical History of World War II

An advisory editorial board on the history of the medical department of World War II has been established in the Office of the Surgeon General. The consultants to the Army Medical Library serving on the board are Brig. Gen. Raymond A. Kelser, Washington, D. C., United States Army, Ret., Dr. Morris Fishbein, Chicago, J. Ben Robinson, D. D. S., Baltimore, and Dr. Lewis H. Weed, Baltimore. The library is regularly making reference and bibliographic contributions in connection with the preparation of this history.

Richard Plunkett New Director of Health and Sanitation

Dr. Richard J. Plunkett has been appointed director of the division of health and sanitation, Institute of Inter-American Affairs, to succeed Col. John D. Yeagley, who resigned, effective April 4. Dr. Plunkett graduated at Tufts College Medical School, Boston, in 1933 and has been a member of the institute staff since it was created in 1942, then serving as chief of field party in Paraguay, where he organized and directed the Inter-American Cooperative Public Health Program. Dr. Yeagley plans to join the staff of Bowman Gray School of Medicine of Wake Forest College, Winston-Salem.

Increase Allowed for Pancreas Glands

An increase of nine cents a pound, from sixteen cents to twenty-five cents, in the ceiling price of individually frozen sheep pancreas glands, used almost entirely in the production of amino acids, used in the treatment of stomach ailments, was authorized June 17 by the Office of Price Administration. This action, effective June 22, is being taken to encourage slaughterers to increase the number of sheep pancreas glands sold to pharmaceutical houses manufacturing amino acids. At the same time, the Office of Price Administration said that a buyer may pay a broker a commission not to exceed 5 per cent of the seller's maximum price for pancreas glands and bile. However, if a seller's commission to the broker is 5 per cent or more, the broker may not receive any fee from the buyer. A buyer is permitted to pay the broker a commission only to the extent that the combined commission from the seller and buyer does not exceed five per cent of the seller's maximum price for pancreas glands and bile. Formerly, the broker's fee established by Office of Price Administration was twelve and one half cents a hundred pounds or a hundred gallons of glands or bile. Today's fee is more in line with industry custom. None of these actions will affect present retail prices on amino acids, it was stated.

Deaths

Emanuel Libman ✠ noted internist, died at Mount Sinai Hospital in New York June 28, aged 73.

Dr. Libman was born in New York Aug. 22, 1872. He received his A.B. degree at the College of the City of New York in 1891 and graduated at Columbia University College of Physicians and Surgeons, New York, in 1894. He served as house physician at Mount Sinai Hospital the following two years, carrying on postgraduate work in Berlin, Vienna and Munich for a year ending in 1897. While he served on the staffs of several hospitals in New York, Dr. Libman continued his affiliation with Mount Sinai Hospital throughout the years, serving as associate pathologist, attending physician and consultant physician. He was a member of numerous scientific groups, including the American Association of Pathologists and Bacteriologists, American Association for the Advancement of Science, Association of American Physicians, American College of Physicians, International Association of Geographic Pathology, International Medical Museums Association, American Association of Immunologists, Pathologic Society of New York, serving as president in 1927, Harvey Society, and a fellow of the New York Academy of Medicine. During World War I he was chairman of the medical advisory board for Selective Draft Board number 13.

In 1942, in honor of his seventieth birthday a dinner was held in New York under the sponsorship of the American Friends of the Hebrew University and the American Jewish Physicians committee, which he served as vice president and chairman of the executive committee respectively. Speakers reviewed his career and his contributions to medicine. He was credited with describing the features of the growth of bacteria on mediums containing sugar and serum and the first proved case of aneurysm by impact. He conducted extensive researches on blood cultures in bacterial infections, including a study of cases now called subacute bacterial endocarditis. He showed the analogies between pernicious anemia and sprue, studied extensively various forms of endocarditis and, in collaboration with Benjamin Sacks, described a previously unidentified form of endocarditis (atypical verrucous endocarditis), a condition now known as "Libman-Sacks disease." He is also said to have made the first extensive clinical study of blood transfusion and made important observations on the sensitiveness of pain.

Various honors that he had received included the gold medal of the American Medical Association in 1912 for the best exhibit of a general nature on a series of the heart showing bacterial endocarditis and the Silver Medal of the Association in 1942 for his exhibit on the "Libman-Sack" disease.

He was professor of clinical medicine at Columbia University College of Physicians and Surgeons for more than thirty years and was one of the five physician members who managed the Dazian Foundation for Medical Research, serving also as the president of the board of directors. He was also a certified specialist of the American Board of Internal Medicine.

His eulogy can best be summed up in the words of the late Dr. William H. Welch, who said of Dr. Libman, in the introduction to three special anniversary volumes published in his honor in 1935, "teacher, investigator, writer, skilled physician, exemplar and promoter of scientific research, generous helper of fellow workers and pupils, guide, leader and friend of a devoted band of disciples."

Paul George Lacroix ✠ New Orleans; Tulane University of Louisiana School of Medicine, New Orleans, 1913; born in New Orleans, Dec. 29, 1889; assistant professor of clinical surgery at his alma mater; student demonstrator in the department of chemistry and anatomy from 1909 to 1913 at the Tulane University Graduate School of Medicine, where he was advanced to instructor in the department of surgery, assistant professor of clinical surgery and associate professor of surgery; fellow of the American College of Surgeons; served as treasurer of the Orleans Parish Medical Society; first lieutenant in the medical reserve corps of the U. S. Army from 1912 to 1916 and major from 1924 to 1932; member of the Punitive Expedition in 1916; served as a captain in the medical reserve corps, Base Hospital number 24, Tulane unit, in France during World War I; since 1940 chairman and examining physician for the Orleans parish local draft board number 13; assistant medical director of the Orleans Parish school system; medical examiner for the Prudential Insurance Company of America for many years; affiliated with the Charity Hospital and the Touro Infirmary, where he died March, 23, aged 56.

Frederick Henry Casper Heise ✠ Trudeau, N. Y.; University of Maryland School of Medicine, Baltimore, 1907; Hahnemann Medical College and Hospital of Philadelphia, 1908; born in Baltimore, Nov. 18, 1883; served as president, vice president and secretary of the American Sanatorium Association; member of the American Clinical and Climatological Association; past president and vice president of the National Tuberculosis Association; member of the executive committee of the Saranac Lake Study and Craft Guild; for many years instructor at the Trudeau School of Tuberculosis; associated with the General Hospital in Saranac Lake; from 1909 to 1911 assistant resident physician at the Trudeau Sanatorium, where he was resident physician from 1912 to 1929, when he became medical director and where he died June 8, aged 62, of carcinoma of the kidney.

Clay Briscoe Freudenberger ✠ Salt Lake City; Rush Medical College, Chicago, 1938; born in Centertown, Mo., April 30, 1904; since 1932 professor and head of the department of anatomy at the University of Utah School of Medicine, where he had been associate professor of anatomy, 1931-1932, and at one time acting dean and associate dean; instructor in anatomy at the University of Minnesota, Minneapolis, from 1929 to 1931 and instructor in biology at the Colorado College from 1926 to 1928; member of the American Association of Anatomists and the Society of Experimental Biology and Medicine; fellow of the American Association for the Advancement of Science; died May 28, aged 42, of bilateral bronchopneumonia and acute cardiac failure.

Lorne William Yule ✠ Columbus, Ohio; Queen's University Faculty of Medicine, Kingston, Ont., Canada, 1908; born in Leeds, Ont., in 1881; specialist certified by the American Board of Psychiatry and Neurology, Inc.; member of the American Psychiatric Association and the Columbus Academy of Medicine; a member of the staff of the Northern Indiana State Hospital at Logansport, Ind., from 1910 to 1918, when he joined the hospital staff at Massillon (Ohio) State Hospital; later served as assistant superintendent of the Cleveland State Hospital and superintendent of the Institution for Feebleminded at Apple Creek; assistant superintendent and physician of the Columbus State School; died in the Grant Hospital February 17, aged 64.

Theodore Kent Keith, Newton Centre, Mass.; Boston University School of Medicine, 1926; member of the American Medical Association; served on the staff and as trustee at the Hahnemann Hospital and on the courtesy staff of the Newton Hospital; began active duty as a captain in the medical corps, Army of the United States, on Oct. 22, 1943; promoted to major on Nov. 12, 1945; served as orthopedic surgeon in northern France, the Rhineland and central Europe; relieved from active duty January 10; died in Boston January 15, aged 43, of brain tumor.

John William Abernathy, Walton, Ky.; Miami Medical College, Cincinnati, 1903; member of the American Medical Association; died March 26, aged 75, of hypertensive cardiovascular disease.

Gustave A. Bachman, Grand Rapids, Mich.; Detroit College of Medicine, 1900; member of the American Medical Association; served on the staffs of the Blodgett and St. Mary's hospitals; died March 9, aged 72, of paralysis agitans.

John Harold Bates, East Rochester, N. H.; Medical School of Maine, Portland, 1899; member of the American Medical Association; served as mayor; died March 17, aged 76, of coronary thrombosis.

Charles Edward Blankenhorn ✠ Great Falls, Mont.; Marquette University School of Medicine, Milwaukee, 1913; served during World War I; died in Boise, Idaho, March 6, aged 56, of carcinoma.

Orlando Warrington Charles, North Fryeburg, Maine; Medical School of Maine, Portland, 1881; member of the American Medical Association and the Massachusetts Medical Society; died March 6, aged 89, of congestive heart failure, chronic myocarditis and asteriosclerosis.

Waldo Lee Cheshire, Eugene, Ore.; Cooper Medical College, San Francisco, 1896; died March 14, aged 81, of cerebral hemorrhage.

Thomas Jesse Collings ✠ Rockville, Ind.; Medical College of Indiana, Indianapolis, 1905; died March 6, aged 65, of coronary thrombosis.

Thomas O. Coppedge, Nashville, N. C.; College of Physicians and Surgeons, Baltimore, 1908; member of the American Medical Association; served as health officer of Nash County; died in the Rocky Mount (N. C.) Sanitarium March 13, aged 64, of coronary thrombosis.

Andrew Boyd Couchman, Royal Oak, Mich.; University of Louisville Medical Department, 1913; member of the American Medical Association; died in the Grace Hospital, Detroit, March 13, aged 56, of chronic glomerular nephritis.

Nicholas William Cousens, Waltham, Mass.; Trinity Medical College, Toronto, Ont., Canada, 1891; member of the American Medical Association; member of the staff of the Waltham Hospital; trustee, Waltham Public Library; died March 19, aged 81, of carcinoma.

Hannah Hall Crowell, Barnstable, Mass.; Boston University School of Medicine, 1888; died February 11, aged 87, of heart disease.

Gerald Edward Dailey, Gloversville, N. Y.; Albany (N. Y.) Medical College, 1915; member of the American Medical Association; died March 3, aged 54, of hypertensive heart disease.

Charles Edmond Davis ⊕ Honolulu, Hawaii; Albany (N. Y.) Medical College, 1891; an Affiliate Fellow of the American Medical Association and member of the Medical Society of the State of New York; served during the Spanish-American War and World War I; at one time on the staff of St. Peter's Hospital in Albany, N. Y.; died in the Tripler General Hospital March 1, aged 79, of bronchiectasis and arteriosclerosis.

Herbert Alton Durham ⊕ Shreveport, La.; University of Vermont College of Medicine, Burlington, 1909; specialist certified by the American Board of Orthopedic Surgery, Inc.; member of the Clinical Orthopaedic Society and the American Academy of Orthopaedic Surgeons; fellow of the American College of Surgeons; served overseas during World War I; chief surgeon, Shriners' Hospital for Crippled Children; died March 13, aged 62, of coronary occlusion.

Ebb **Browne Durrett,** Bessemer, Ala.; University of Alabama School of Medicine, University, 1912; member of the American Medical Association; for many years physician for the Tennessee Coal, Iron and Railroad Company; died March 13, aged 61, of coronary occlusion.

Joseph E. Engelson, New York; Columbia University College of Physicians and Surgeons, New York, 1906; served during World War I; on the staffs of St. Luke's and Roosevelt hospitals; for many years asociated with the medical department of the Mutual Life Insurance Company in New York; died in the Muhlenberg Hospital, Plainfield, N. J., March 17, aged 63, of coronary occlusion and cirrhosis of the liver.

Don Agard Epler ⊕ Newark, N. J.; Columbia University College of Physicians and Surgeons, New York, 1903; served during the Spanish-American War; died March 4, aged 67, of coronary disease.

Henry George Epstein, Goldsboro, N. C.; University of Pennsylvania School of Medicine, Philadelphia, 1929; on the staff of the Goldsboro Hospital; died March 14, aged 43, of coronary thrombosis.

Cloyde Reber Fisher ⊕ Decatur, Ill.; University of Chicago School of Medicine, 1935; interned at the Cincinnati General Hospital; died in the Macon County Hospital March 8, aged 49, of carcinoma of the lung.

Frank C. Franke, East Cleveland, Ohio; Western Reserve University Medical Department, Cleveland, 1880; died in Lyndhurst March 6, aged 86, of diffuse bronchitis.

Oakley Leonard Geiger, Grove Center, Ky.; Louisville Medical College, 1877; died in Chandler, Ind., March 14, aged 90, of uremia.

Heinemann Goldschmidt, Lancaster, Ohio; Universität Leipzig Medizinische Fakultät, Saxony, Germany, 1911; member of the American Medical Association; served in the German army during World War I; died in the University Hospital, Columbus, March 18, aged 66, of coronary occlusion.

Arthur B. Goltz, Grafton, Ill.; National University of Arts and Sciences Medical Department, St. Louis, 1914; died March 8, aged 56, of amyotrophic lateral sclerosis.

Rufus Jackson ⊕ Baton Rouge, La.; University of Louisville (Ky.) Medical Department, 1908; specialist certified by the American Board of Otolaryngology; member of the American Academy of Ophthalmology and Otolaryngology; served overseas during World War I; accidentally killed February 21, aged 62, when a tractor which he was driving overturned.

Darnell Edward Johnson, Brooklyn; Howard University College of Medicine, Washington, D. C., 1935; member of the American Medical Association; died in the Kings County Hospital February 12, aged 35, of heart disease.

Russell Arthur Jones, Chicago; Chicago College of Medicine and Surgery, 1908; member of the American Medical Association; died in the Illinois Central Hospital February 27, aged 61, of coronary thrombosis.

Eugene Clarence Judd, Raleigh, N. C.; University of Pennsylvania School of Medicine, Philadelphia, 1911; member of the American Medical Association; past president of the Raleigh Academy of Medicine; served in the U. S. Navai Reserve during World War I; on the staffs of the Rex and St. Agnes hospitals; died February 16, aged 63, of coronary occlusion.

Orum Lafayette Kidd, Gibsland, La.; Memphis (Tenn.) Hospital Medical College, 1909; died in Shreveport February 14, aged 64, of arteriosclerosis.

Richard Jay Lambert, St. Charles, Ill.; Bennett Medical College, Chicago, 1907; member of the American Medical Association; on the staff of the Delnor Hospital; died in Elgin March 5, aged 71, of hypostatic pneumonia.

Max Levy, Brooklyn; College of Physicians and Surgeons, medical department of Columbia College, New York, 1885; died February 12, aged 82, of chronic nephritis.

Estell Budd Lewis, Glen Campbell, Pa.; Jefferson Medical College of Philadelphia, 1899; served as deputy sheriff of Indiana County and as school director in Glen Campbell; for many years surgeon for the Pennsylvania Railroad; on the staff of the Adrian Hospital, Punxsutawney, where he died February 26, aged 75, of pneumonia.

Maxwell John Lick ⊕ Erie, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1912; member of the founders group of the American Board of Surgery; fellow of the American College of Surgeons; past president of the Medical Society of the State of Pennsylvania and the Erie County Medical Society; a surgeon for the New York Central Railroad for many years; chief surgeon of the Hamot Hospital; attending surgeon, St. Vincent's Hospital; died March 26, aged 60, of coronary disease.

Michael Paul Lonergan, Danbury, Conn.; Cornell University Medical College, New York, 1918; member of the American Psychiatric Association; veteran of the Spanish-American War; for many years affiliated with the Manhattan State Hospital, Wards Island, New York; died in Philadelphia March 7, aged 67 of bronchopneumonia.

Walter Albert Loops, La Junta, Colo.; Milwaukee Medical College, 1900; member of the American Medical Association; assistant surgeon, Atchison, Topeka and Santa Fe Hospital, where he died February 20, aged 67, of coronary thrombosis.

Guy Alexander Lott, Osage, Iowa; State University of Iowa College of Medicine, Iowa City, 1906; member of the American Medical Association; died February 16, aged 64, of coronary thrombosis.

Frederic James McCammon, Brooklyn; Queen's University Faculty of Medicine, Kingston, Ont., Canada, 1892; specialist certified by the American Board of Otolaryngology; fellow of the American College of Surgeons; on the staff of the Brooklyn Eye and Ear Hospital; died February 2, aged 77, of arteriosclerosis and cerebral hemorrhage.

James Howe McLachlin, Cincinnati; Eclectic Medical College, Cincinnati, 1919; served on the staff of the Bethesda Hospital; died March 3, aged 50, of coronary thrombosis.

Tobias Magana, Dubuque, Iowa; St. Louis College of Physicians and Surgeons, 1899; died February 24, aged 71, of cerebral hemorrhage.

Albert Orville Marsh, Pomona, Calif., College of Medical Evangelists, Los Angeles, 1945; interned at the Loma Linda Sanitarium and Hospital in Loma Linda; died en route to the Pomona Valley Community Hospital March 19, aged 31, of injuries received as a result of being struck by an automoblie.

Joseph John Michalak ⊕ Humboldt, Kan.; St. Louis University School of Medicine, 1919; died in a hospital at Iola February 3, aged 49, of lobar pneumonia and coronary occlusion.

Ernest Calvin Miller, La Grande, Ore; University of Oregon Medical School, Portland, 1935; began active duty as a first lieutenant in the medical corps, Army of the United States, in April 1941 and separated from the service in September 1941; died in Yreka, Calif., in March, aged 40.

Henry Nicholas Moeller ⊕ Poughkeepsie, N. Y.; Columbia University College of Physicians and Surgeons, New York, 1904; served as vice president of the American Physicians Art Association; on the staffs of the Vassar and St. Francis hospitals; died February 17, aged 63, of coronary disease.

Ellen Mary Morse, Detroit; New York Medical College and Hospital for Women, Homeopathic, 1916; member of the American Medical Association; died February 12, aged 65, of respiratory failure.

William Nelson Mundy, Forest, Ohio; Eclectic Medical Institute, Cincinnati, 1883; for many years professor of pediatrics at his alma mater; past president and secretary treasurer of the Hardin County Medical Society; a member of the library board; formerly member of the Forest and Hardin county school boards; served as a member of the city council; staff and past member of the board of trustees of the McKitrick Hospital, Kenton; author of a book on diseases of children; died February 28, aged 85, of coronary thrombosis.

William Francis O'Malley ✠ Manokin, Md.; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1916; past president and secretary of the St. Louis County Medical Society; formerly county health officer and on the staff of St. Louis County Hospital; died February 12, aged 59, of acute dilatation of the heart and chronic interstitial nephritis.

William J. O'Reilly, Saginaw, Mich.; Detroit College of Medicine, 1890; member of the American Medical Association; twice president of the Saginaw County Medical Society; at one time professor of the principles and practice of medicine at the Michigan College of Medicine in Detroit; health officer of Saginaw; for many years chief of staff of St. Mary's Hospital, where he died March 28, aged 81, of arteriosclerosis.

William Dexter Padget ✠ Lenoir City, Tenn.; Chattanooga Medical College, 1898; served as president of the Loudon County Medical Society; member of the city school board and mayor; died March 3, aged 72, of coronary occlusion.

George Wolfe Pectol, Louisville, Ky.; University of Louisville Medical Department, 1907; member of the American Medical Association; died in Fern Creek February 17, aged 71, of a skull fracture incurred in a fall on a concrete walk and cerebral hemorrhage.

MAJOR GORDON H. HAGGARD
M. C., A. U. S., 1908-1944

LIEUT. COL. WALTER P. MANNING
M. C., U. S. Army, 1907-1944

Arthur Russell Porter Sr., Memphis, Tenn.; University of Louisville Medical Department, 1884; died March 11, aged 86, of arteriosclerotic myocarditis.

James Ovid Post, Los Angeles; Minneapolis College of Physicians and Surgeons, medical department of Hamline University, 1905; died February 12, aged 81, of generalized arteriosclerosis.

Samuel A. Prather ✠ Vincennes, Ind.; Medical College of Indiana, Indianapolis, 1905; died in the Methodist Hospital, Indianapolis, February 18, aged 72 of cerebral hemorrhage and diabetes mellitus.

Charles Reubin Preston, Snyder, Okla.; University of the South Medical Department, Sewanee, Tenn., 1908; member of the American Medical Association; died in the Southwestern Clinic Hospital, Lawton, March 6, aged 64, of cerebral hemorrhage.

John Gordon Prine, Morgantown, Miss.; University of Tennessee Medical Department, Nashville, 1909; served as a member of the state legislature; died March 16, aged 73, of nephritis and endocarditis.

Milton A. Robison, East Orange, N. J.; University of Pennsylvania Department of Medicine, Philadelphia, 1884; died February 18, aged 94, of cardiovascular renal disease.

James Foster Scott, McLean, Va.; University of Edinburgh Faculty of Medicine, Scotland, 1888; died in Washington, D. C., February 20, aged 83, of cardiac failure.

Adair Wayne White ✠ Houston, Texas; University of Louisville School of Medicine, 1916; associated with the Jefferson Davis Hospital and the Memorial Hospital, where he died February 17, aged 56, of adenocarcinoma of the bowel.

Burrel Clifford Wilson, Clarkson, Ky.; Atlanta College of Physicians and Surgeons, 1899; member of the American Medical Association; served as county health officer and at various times had been associated with the Florida and Kentucky state boards of health; died in Louisville February 22, aged 69, of heart disease.

KILLED IN ACTION

Gordon Hill Haggard, Hope, Ind.; Indiana University School of Medicine, Indianapolis, 1933; member of the American Medical Association; interned at the Indianapolis City Hospital; began active duty as a first lieutenant in the medical corps, Army of the United States, on March 27, 1941; promoted to captain and major; first stationed at Fort Oglethorpe, Ga.; while on duty as division surgeon with the 76th division at Fort Meade, Md., made models of war wounds which were used in the production of bandages and were adopted by the army as a standard item of issue; the original models are in the American War College Museum in Washington, D. C.; they have proved very valuable in training medical troops to give aid on the battlefield; awarded the Legion of Merit for their invention and construction; in 1942 entered the air corps; took his flight surgeon's training at Randolph Field, Texas, and from there was sent to various classification centers; sent as group surgeon to an air base in Ephrata, Wash., where he established a 200 bed hospital and while there became interested in high altitude flying work in regard to training crews for flying; went overseas from Grand Island, Neb., with his group in January 1944; awarded the Air Medal with Oak Leaf Clusters and the Presidential Unit Citation and had two battle stars on his European theater ribbon; awarded the Purple Heart posthumously; reported missing in action since Oct. 7, 1944, when the B-17 of which he was a crew member was lost on a bombing to Politz, Germany; official date of death subsequently listed as Oct. 7, 1944, aged 36.

Walter Philippe Manning ✠ Lieutenant Colonel, M. C., U. S. Army, Minneapolis; University of Minnesota Medical School, Minneapolis, 1933; interned at the University and Minneapolis General hospitals; entered the medical corps of the regular army as a first lieutenant in 1935; received a Presidential citation for his wonderful work during those dark days on Bataan; killed in action in the Pacific area Dec. 15, 1944, during an air attack while being transported aboard a Japanese vessel from the Philippine Islands to Japan, aged 36.

Foreign Letters

LONDON

(From Our Regular Correspondent)

June 1, 1946.

Minister of Health to Control Hospitals

The national health service bill proposes to nationalize all the hospitals and bring them under the control of the minister of health. An endeavor was made by the Conservative members of the standing committee of the House of Commons, which is considering the bill, to take from the minister of health the sole responsibility for providing hospital and specialist services and instead to make it his duty to secure the provision of these facilities by local health authorities, hospital management committees or boards of governors. An amendment to this end was moved by Mr. Willink, who was minister of health under the previous coalition government. He described the proposal in the bill as a tremendous change fraught with great danger. The fundamental issue was whether there should be direct centralized responsibility or local autonomy of various kinds to suit varying circumstances and subject to supervision by the minister. It was disastrous that the most efficient hospital authorities should cease to have the responsibility of providing hospitals for people in their locality. Under the bill they would become mere instruments, creatures or agents of the minister. That, among other things, was bound to lead to great delay in getting these services. It was lamentable that voluntary effort should be discarded and the services placed under a central government department.

Resisting the amendment, Mr. Bevan, minister of health, said that it would completely change the whole character of the bill. He admitted that he had overthrown all alternative schemes put forward. He had done so because they were not practical and merely attempts to conciliate various interests. What he had to keep before his mind was the welfare of the patient. The obligation of organizing the national hospital service must be placed on Parliament, which was all that was meant by laying the obligation on the minister. If the provision of hospitals was left to autonomous bodies with indirect control there would be no guaranty that those bodies were performing their functions. The minister could exercise discipline only by withholding grants, which had always proved a very difficult and awkward way. As the state was providing the money, the carrying out of the undertaking could not be left to local bodies. Much had been said about the advantages of local responsibility. To whom were the voluntary hospitals at present responsible? If a person wished to make a complaint to whom should he go? In the future there would be the house committee, the management committee, the regional board and what was important, there would be the responsibility of the minister's department. In his experience the most sensitive instrument for bringing about effective administration was a question in the House of Commons. The amendment was negatived by 29 votes to 13.

Australian Gift for the Royal College of Surgeons

The President of the Royal Australasian College of Surgeons has sent a gift of $5,000 for the rebuilding of the Royal College of Surgeons of England, which was damaged by German bombs. This gift is in addition to a donation from the fellows of the Royal Australasian College of Surgeons resident in New Zealand. With the individual contributions of surgeons in the two dominions, this brings the total sum received from them up $11,500. This evidence of loyalty of the fellows of the English college resident at such a distance and of the attachment of the fellows of the Australasian college, is a great encouragement to the council of the English college to make it a still more worthy headquarters of British surgery. Its endeavor will always be to provide full facilities for post-graduate study and research in the scientific departments and in its unique museum, which have an imperial value and significance.

TURKEY

(From Our Regular Correspondent)

ANKARA, May 15, 1946.

Tuberculosis Control

Next in importance to malaria as a public health problem is tuberculosis, which has considerably increased among the poor of urban communities during the last six years. In spite of an abundant food supply everywhere prices have risen four to ten fold. War conditions have retarded many a building project, creating a housing shortage which, together with high prices for rent and food, was detrimental to the health of families in the lower income groups. Through governmental channels they have at periodic intervals been supplied with staples such as rice, olive oil, sugar, soap and cloth at moderate prices. Rationed bread in the cities and towns was cheap, the daily ration being 300 Gm. for adults and 150 Gm. for children under 5 years of age. As this was insufficient in a country where much bread is consumed, the people had to fall back on rice and other more expensive foods. Since bread has not been rationed in rural communities people there consume as much as 1 Kg. or more per day. Bread soon found its way into the black market of the larger cities. Since 1945 bread rationing has ceased in the provincial towns, but in Ankara, Istanbul and Izmir it is still rationed. On the other hand there was plenty of cheap food in rural communities, where the high prices paid for their produce made the farmers rich.

According to prewar statistics, the death rate from tuberculosis in Ankara, Istanbul and Izmir was 150-200 per hundred thousand and in rural communities, 80-100. Bone, joint and glandular tuberculosis was rare. Considering that 15 million people are living in 40,000 villages, tuberculosis takes on an important aspect.

Because there were no funds available, the Ministry of Health was unable to embark on a larger scheme for tuberculosis control work. There are not more than ten tuberculosis clinics, two sanatoriums and one preventorium. Besides these three government institutions there are five private sanatoriums. In all there are 1,500 beds available for the tuberculous. There is always a long waiting list at the government institution, where treatment is free. People sometimes die before their turn comes. At the Istanbul and Izmir isolation hospitals pavilions have been set aside for the reception of tuberculous patients, likewise a certain number of beds at the provincial hospitals. At the tuberculosis clinic the poor are given free cod liver oil, butter, eggs and sugar. Artificial pneumothorax is in general use. The clinics also employ visiting nurses.

The Society for the Prevention of Tuberculosis, founded twelve years ago in Istanbul by the president of Istanbul University, Prof. D. Tevfik Saglam, has done fine work. Twelve clinics have been opened in the crowded poor districts of the city. The society also has a 200 bed private sanatorium. Some persons, impressed with the good work of the society, have recently given several hundred thousand pounds for the erection of a sanatorium that will be named after the donors. In the provincial towns of Asia Minor similar societies have been founded and have opened clinics. For the past ten years a day has been set aside for street and house collections. A tuberculosis stamp is affixed to tickets of Istanbul cinemas. Such stamps may also be affixed to letters and telegrams. The BCG vac-

cine prepared at the Central Institute of Hygiene has for some reason or other not come into general use and there are still some townships where spitting in public has not yet been made a punishable offense. Milk is always boiled; only a few cities have pasteurization plants.

A New Medical School in Ankara

Since the Istanbul Medical School founded one hundred and twenty years ago no longer was in a position to cope with the growing demands of modern medical science and the enforcement of a comprehensive public health program, the National Assembly passed a law in 1937 for the foundation of a second medical school in Ankara. As the result of a competition Prof. Jean Walter, a French architect of international reputation, was appointed to draft the plans for the medical center to be erected at the capital. The model of the center is now on view in the hall of the Ministry of Health. The center comprises a 1,000 bed general hospital, an institute of anatomy, histology, physiology, pathology, hygiene and bacteriologic laboratories, and also dormitories, providing at the expense of the Ministry of Health board and maintenance for 1,000 medical students, of whom 150 are already accommodated in temporary dormitories. Unfortunately, the project was delayed by the outbreak of the war. Up to now only a 280 bed maternity hospital has been erected, but owing to lack of equipment patients have not yet been received. In November 1945 the foundation ceremonies for the administration building and the institutes took place. Medical education in Ankara began with the fall semester in 1945, when the first class of medical students was admitted to the science department of Ankara University. Last class students are serving their internship at the Ankara Military and Civilian hospitals. As more new hospitals become available, physicians are expected to be graduated in six years.

BUENOS AIRES

(From Our Regular Correspondent)

April 5, 1946.

Antirabies Virus in Poliomyelitis

Dr. Luis Mario Beramendi of Montevideo, in a recent lecture at the Hospital Ramos of Buenos Aires, pointed out that the filtrable virus of rabies and the virus of poliomyelitis are similar. The clinical course of the two diseases is also similar. At the present time antirabies vaccination is free of any possible danger, especially when the vaccine is prepared by Fermi's technic with phenol. The speaker stated that he had given antirabies treatment to 34 patients with poliomyelitis whom he had observed in the course of the last ten years. The vaccine proved to be harmless and reliable. The best results were obtained when treatment was started during the first month of the disease. However, the results of antirabies vaccination in 6 patients of the group, who were seen for the first time six months after the onset of the disease, were good. In acute cases the blood serum of persons who had had antirabies treatment was given to the patients either by the intramuscular route (acute cases) or by the intravenous route (extremely acute cases). If the blood serum was given from donor to patient it was not necessary to sterilize it. Otherwise it was subjected to tyndallization and then kept at a low temperature. The vaccines were administered either subcutaneously or intramuscularly according to the same procedure as that for patients with rabies. If the treatment had to be prolonged the vaccine was neutralized by heat (37.5 C. in the stove) and then kept in the ice box. The administration of vaccine prepared by Fermi's technic was not followed by complications. Concurrent with the course of vaccination a coadjuvant therapy was administered. No deaths occurred in the group of 34 cases reported by the speaker. Improvement was obtained in all cases. All patients who received the vaccine within the first month of the disease recovered without sequelae. In the other patients, moreover, noticeable improvement was observed.

Hospitals in Argentina

Guia Hospitaria de Argentina has recently been published by the Sección de Bioestatistica y Geografía Médico-Social of the National Department of Public Health. It contains information on hospitals, maternity hospitals, dispensaries, centers of public aid, clinics and sanatoriums. These institutions are listed by provinces and localities. There is a total of 2,197 hospitals, of which 223 are in the federal capital, 469 in Buenos Aires province, 289 in Cordova province, 115 in Entre Ríos province, 318 in Santa Fé province and the others in different provinces and territories.

Meeting of Leprologists

The third meeting of Argentine Leprologists took place recently in the city of Cordova. Leprosy constitutes a serious problem in Argentina. Laws for the prevention of the disease have been in force for the last twenty years, yet the organization against leprosy is insufficient and incomplete. Leprologists and dermatosyphilologists should be appointed to do the technical work in the field. Chaulmoogra oil and its derivatives are the most reliable therapeutic substances. Certain other therapeutic methods have been advised but are not considered as reliable as the chaulmoogra oil therapy.

Larviphagic Fish in Antimalarial Crusade

The Rosario hydrobiologic station two years ago received a number of adult Gambusia affinis fish from the United States (THE JOURNAL, Aug. 12, 1944, p. 1954). The Rosario station recently sent to Jujuy Province 20,000 descendants from these imported fish to be used in the antimalarial crusade in northern Argentina. Native fish of the "Cnesterodon decenmaculatus" and "Phalloceros caudomaculatus" species are also being used in the antimalarial crusade in certain regions of the country.

Penicillin

The members of the Argentine Committee on Penicillin appointed by the National Department of Public Health have fixed the price of penicillin at 12 Argentine pesos ($3) for 100,000 Oxford units.

Deaths

Dr. Carlos Butler, head of the Instituto de Radiologia of Montevideo, recently died at the age of 66. He has written many articles on clinical medicine and social medicine.

Marriages

DAVID W. QUICK JR., Galveston, Texas, to Miss Elizabeth Du Bois of Spokane, Wash., April 22.

SAMUEL HENLEY CARTER JR., The Plains, Va., to Miss Katherine Kivlighan of Staunton, March 30.

ROBERT ANDREW JOHNSON to Miss Minna Virginia Flynn, both of Manchester, N. H., April 27.

DAVID M. KEEDY, Walpole, Mass., to Miss Gladys Eusebia Dimock of Lexington, Ky., May 14.

SAM DIXON GRAHAM to Miss Jane Warwick O'Neill, both of Charlottesville, Va., March 28.

CARROLL T. ADRIANCE to Miss Gloria Gene Kierbow, both of Galveston, Texas, February 3.

JAMES K. KEELEY, Rochester, Minn., to Mrs. Mary H. Cooke at Poughkeepsie, N. Y., June 1.

GERALD J. FRIEDMAN to Miss Dorothy Ross, both of New York, recently.

Correspondence

BOMBING AND HEALTH

To the Editor:—As a scientist who was living in London from the sounding of the first siren just before the declaration of war on Sept. 3, 1939 till the thunderous echoes of the last rocket died away in April 1945, and who was also an air raid warden during all spare time, perhaps I may be allowed to make a few comments relative to your editorial of March 9.

Comparison between the German attacks on London and the Allied attacks on Germany is difficult, as the two were essentially different both in kind and as to the time at which they occurred.

At the commencement of the war the idea of air attack, and indeed of all warfare, was terrible to a world used to peace and safety. Czechoslovakia surrendered on the threat of air attack by one hundred bombers and the Netherlands after such an attack, and the Germans themselves stated that if the British had dropped bombs instead of leaflets they would have stopped the war. We in London had a similar fear.

On first walking down my peaceful road in September 1940 and finding houses I had passed only a few hours before smoking heaps of rubble, my friends dead and a telephone bell still ringing pitifully amid the débris, I myself felt that I could stand no more. Most of us felt the same; but that was only the beginning, and we did not run away. Within a few weeks we became used to such sights.

Then again the Allied attacks on Germany were short though unspeakably terrible, while the German action against London went on day and night for months with hardly more than a few minutes break during the day, so that all sleep, work, shopping and the rest of daily life had to go on with the guns firing and bombs coming down. The strain was continuous and unbearable, but the human organism adjusted itself so that sleep was automatic. Every day we felt that we could stand no more, but every day we went on as usual. To have suggested giving in would have meant derision and an enforced visit to the local doctor!

The 'blitz' finished with the two great raids of April 1941, and it was not until the unexpected lull after these that people began to ask "Why have they stopped? We could not have stood much more of that," meaning that the life of the capital must have been brought to a standstill; but even so we, Britain, would have fought on, all of us.

During all this time I never heard any suggestion from any one that we might have to surrender, and this in spite of the fact that the raids had been not only continuous but indiscriminate. Thus during this period some three thousand high explosive bombs fell in my own suburb, almost entirely on residential districts. Nor did I ever hear such a suggestion mentioned in the long years that followed.

For our ordeal was by no means over. Frequent spasmodic raids culminated in the great attacks in the spring of 1944, concentrated and short on the Allied model, and these were followed by the weeks and months when day and night we no longer fought but were scientifically murdered by the V 1's and V 2's; but we carried on.

It is only now when our long ordeal and the strain are over and we are denied the food, clothes and fuel necessary to our recuperation that health has collapsed and the people are nervous, irritable and depressed.

DONALD P. LOWDELL, M.Sc., B.Sc. (LONDON), A. R. I. C.,
London.
Post Warden, C 23 Putney.

PRURITUS IN RETURNING VETERANS

To the Editor:—In regard to the query in THE JOURNAL, June 8, page 568, concerning severe pruritus in returning veterans, I would suggest that a search be made for evidence of scabies. The incidence of scabies in men returning from overseas has been extremely high and is frequently accompanied with urticaria. In urticaria per se there are rarely excoriations or breaks in the skin due to scratching. Treatment for the scabies relieves not only the infestation but the urticaria as well.

CLARENCE SHAW, M.D., Chattanooga, Tenn.

To the Editor:—Under "Severe Pruritus in Returning Veterans" on page 568 of THE JOURNAL, June 8, the problem of urticaria in returning veterans is discussed. The condition described in the inquiry looks to me more like scabies than like urticaria. Therefore, the advice given will be just as useless as the treatment given by the inquirer. A good many soldiers contracted scabies on troop ships coming home. The nature of their trouble is well proved by the scores of cases occurring in their families. Unrecognized scabies in returning veterans is so common that I feel the advice should be amended accordingly.

JOSEPH MULLER, M.D., Worcester, Mass.

To the Editor:—I read with interest in THE JOURNAL of June 8 the note headed "Severe Pruritus in Returning Veterans." Without seeing these veterans I would be willing to make a 50 to 1 bet that they are suffering from scabies. The incidence of this was extremely high among our soldiers in Europe and seemed the rule rather than the exception among European civilians. The lack of bathing facilities on returning troop ships, I observed, frequently caused wide dissemination over the body where only a few scabetic lesions had existed before. Again, in the great embarkation camps of Europe, soldiers drew extra blankets, which they turned in again when they sailed a few days later, and these blankets were drawn by some one else promptly. Thus I think some contracted it just as they left, while others noticed it for the first time about when they arrived. I have seen hundreds of such cases at the time and since then in examining men entering college under the G. I. Bill of Rights.

Dr. Frich in his question uses the term "urticaria," but I have a feeling that he is using this as meaning itching, because he says "there are no skin manifestations except excoriations due to scratching."

Incidentally, I have found that the simplest way to treat these men is to paint the body from the neck down with a 33 per cent benzyl benzoate solution in isopropyl alcohol on two successive days. This cures the scabies and is easier and less messy than an ointment. They are directed to put on clean clothing and sun and air out their blankets. Elaborate disinfestation is not necessary.

EDWARD C. HUMPHREY, M.D.,
University Health Service,
University of Kentucky,
Lexington, Ky.

RESTLESS LEGS

To the Editor:—I note with interest the several recent communications in THE JOURNAL concerning "restless legs." The syndrome described by Ekbom (in the June 1 issue, p. 481) occurs not infrequently in patients with nutritional deficiency and clears up more or less promptly under intensive therapy with the vitamin B factors (including an adequate natural source of the B complex). This disturbance is apparently part of the general phenomenon of hyperirritability of the nervous system which occurs in deficiency of thiamine and niacinamide, and of other as yet unidentified nutritional factors.

MORTON S. BISKIND, M.D., New York.

Bureau of Investigation

CEASE AND DESIST ORDERS

Abstracts of Certain Federal Trade Commission Releases

The work of the Federal Trade Commission in helping to protect the public against misrepresentation or fraud in the medical as well as other fields, has been greatly extended by the provisions of the Wheeler-Lea Amendment to the Federal Trade Commission Act. The Food, Drug and Cosmetic Act of 1938 increased the Food and Drug Administration's control of the advertising claims and statements made on the label of a medicine or on the carton or in the accompanying leaflet, whereas what might be termed collateral advertising, that which appears in circulars, newspapers and magazines and over the air, comes more actively under the purview of the Federal Trade Commission by virtue of the Wheeler-Lea Amendment.

THE JOURNAL has at various times commented on the activities of the Federal Trade Commission in this connection, even before the Wheeler-Lea Amendment gave it its added powers. In some cases the Commission may accept from the person or concern involved a stipulation that the objectionable practices or claims cited will be discontinued. In other cases the Commission issues what is known as a Cease and Desist Order, in which the individual, manufacturer or distributor cited is ordered to cease and desist from practices which have been declared objectionable. In some cases the claims cited have been discontinued by the firms several months (or even longer) before the issuance of the order. Abstracts of some of the orders issued in 1943, 1944 and 1945 follow in this form: name of product, name of distributor, date of issuance of complaint, date of issuance of Cease and Desist Order and terms of order.

Airflow Arch-Ezurs.—C. H. Stemmons, trading as C. H. Stemmons Manufacturing Company, Kansas City, Mo.; complaint issued Jan. 5, 1943; order issued July 3, 1944. Order directed respondent to cease representing that the device performs any corrective function in treating foot conditions, or that its use will relieve painful conditions caused by weak arches or other forms of foot disability, that it will provide exercise for the foot or have any value in exercising or restoring weak or flabby muscles; that it will prevent spreading of the feet, relieve foot or body fatigue, create an air suction through the shoes, or is so designed as to fit every individual foot. In March 1938 the same respondent had entered into a stipulation with the Commission, agreeing to cease representing that his Airflow Arch-Ezurs are the greatest invention of modern times for foot ailments, end foot suffering after all else fails, relieve pain instantly and bring quick relief to persons suffering from flat feet, weak arches, metatarsal pains, burning calluses, bunions, swollen ankles and tired, aching feet, provide nature's way of foot correction and give more foot comfort than any other arch support on the market.

Crystal Brand Baking Soda.—Detroit Soda Products Company, Wyandotte, Mich.; complaint issued Sept. 5, 1943; order issued July 2, 1944. Order directed the concern named and Aarons, Sill & Caron, Inc., Detroit, an advertising agency, to discontinue the following advertising representations: That the product in question, when used as a dentifrice, will keep the gums healthy, remove teeth stains (other than acting to some extent as a cleansing and polishing agent), prove a remedy or constitute an effective treatment for indigestion, other than giving temporary relief in cases of stomach distress caused by hyperacidity, or be a remedy for colds and coughs. Order further directed respondents to cease representing that the product is a remedy for lumbago or rheumatism, possesses tonic properties, acts as a general tonic on the system, is a competent or effective treatment for la grippe or influenza, will prevent colds or be effective in killing the germs or other organisms which cause colds, la grippe and influenza.

Neumann's Products.—One Morton G. Neumann, Chicago, trading as Valmor Products Company, Famous Products Company and Madam Jones Company; complaint issued Nov. 8, 1942; order issued June 8, 1944. Order directed Neumann to discontinue the following misrepresentations in his advertising: That "Sweet Georgia Brown Lemon Fragrance Cleansing Cream" will lighten the complexion, clear up a dark one, or change the color of the skin; that "Brown Skin Beauty Skin Brightener" will lighten the skin or change its color; that "Brown Skin Beauty Lemon Fragrance Vanishing Cream" will cause the skin to be less oily or greasy; that "Sweet Georgia Brown Sleeping Beauty Night Cream" will have any stimulating effect on the skin; that "Valmor Eau de Quinine Hair Tonic" will promote hair growth, prevent loss of hair or act as a tonic for the scalp or hair; that "Valmor Walk-Easy Foot Powder" is an effective remedy for tired or aching feet; or that "Old Indian Herb Tea" will keep the user in good health or prevent sickness or be a competent remedy for sour stomach, pimples or tired feeling. Neumann further was ordered to discontinue any advertisement which represented that "Valmor Little Blue Pills with Buchu" have any value in the treatment of functional disturbances of the kidneys or will aid the kidneys in removing poisons or acids from the blood, or which failed to reveal that the use of the product by persons having diseased or disordered kidneys may result in serious injury, and that its prolonged administration may injure normal kidneys; that "Brother Johnson's American Oil Haarlem Capsules" aid inactive kidneys or constitute a competent treatment for any kidney disorder, or which advertisement failed to reveal that use of the preparation by persons having diseased or disordered kidneys may result in serious injury, and that its prolonged administration may injure normal kidneys; that "Old Indian System Tonic" will exert any tonic effect on the system or constitute an effective remedy for weakness, run-down condition or fatigue, or which advertisement fails to reveal that the preparation should not be used by persons suffering from symptoms of appendicitis; that "Madam Jones Vegetable Compound" constitutes a competent remedy for cramps, pains and nervousness due to weak or run-down conditions, or will clear the skin, make the eyes sparkle, or provide good health, or which advertisement failed to reveal that the preparation should not be used by persons suffering from symptoms of appendicitis or represented that "Madam Jones Female Tablets" are harmless and entirely safe; or which advertisement did not make clear that frequent or continued use of the preparation may be dangerous to health; that "Valmor Red Clover Compound" has any tonic effect on the system, is an effective treatment for tired, weak or run-down conditions or in removing poisons from the blood; or which advertisement did not reveal that the mixture should not be used by persons suffering from symptoms of appendicitis or those having goiter or other thyroid disease, or suffering from active or arrested tuberculosis. The order provided, however, that with respect to any of the six preparations last mentioned above, the advertisements need contain only the statement, "Caution: Use only as directed" if instructions on the label or in the labeling contain a warning of their potential danger to the health of the user.

OCA Pink Ovels.—Trans-Pac Services, Inc., and Dorland International, Inc., both of New York; complaint issued Sept. 3, 1943; order issued June 10, 1944. Order directed concerns to discontinue the following misrepresentations in the advertising of this product, also known simply as "OCA": That the preparation is a competent and effective treatment for colds, will mitigate a cold or prevent complications of it, or be of any value in treating the condition beyond temporarily relieving some of its symptoms; that it can be depended on to overcome persistent pains in the head or back, and is a new preparation, safe and harmless to use. According to the Commission's findings, the product does not possess the therapeutic properties claimed for it, and its frequent or continued use may be dangerous to health.

Phalene and Burtone.—J. H. Camp, trading as Drug Profits, Inc., Ravenswood, W. Va.; complaint issued Jan. 28, 1943; order issued July 3, 1944. Order directed respondent to cease and desist from disseminating any advertisements in commerce which represent that Burtone is safe and harmless and may be taken continually without ill effects, or which advertisements fail to reveal that neither Burtone (a laxative) nor Phalene (a liver tonic) should be used by one suffering from abdominal pains or other symptoms of appendicitis; provided, however, that such advertisements need contain only the statement, "Caution: Use only as directed," if and when the instructions on the label or in the labeling include a warning to the same effect. In this department of The Journal Jan. 17, 1942, page 247, appeared an abstract of an order from the Commission directing J. H. Camp and Drug Profits, Inc., to discontinue certain advertising misrepresentations for Phalene and Burtone.

Rex Diathermy Machine.—Rex Diathermy Corporation, Brooklyn; complaint issued April 4, 1944; order issued July 1, 1944. Order directed the concern to discontinue the following misrepresentations for its device: That, when used by unskilled laymen for self-diagnosed conditions, it constitutes an effective treatment of, or remedy for, rheumatism in its various forms in all parts of the body, as well as bronchitis, or alleviation of pain resulting from bodily disorders, unless specifically limited to conditions which do not involve acute inflammatory processes, glandular structures or the special senses, or that diathermy treatments are used for the treatment of diseases by all physicians and in all hospitals. Order further directed respondent to cease disseminating any advertisement which did not clearly reveal that it is unsafe to use the device for any condition unless and until a competent medical authority has determined by diagnosis that the use of diathermy is indicated, has prescribed the frequency and rate of application of the treatments, and the user has been adequately instructed by a trained technician in the use of the mechanism. In this connection the Commission described the Rex Diathermy Machine as being a portable device of the kind "commonly known as the spark-gap type diathermy."

Zonite Liquid and Zonitors.—Zonite Products Corporation, New York, and H. W. Kastor & Sons Advertising Company, Inc., Chicago; complaint issued May 7, 1942; order issued May 19, 1944. Order directed respondents to discontinue any advertisement which represented that the products in question destroy all germs or bacteria in the genital tract or constitute a treatment for infections of that tract, unless it is clearly revealed in immediate connection with such claim that it is not always possible for the preparation to come in contact with all germs and bacteria in such tract; and to discontinue representing that the products constitute contraceptives, unless it is clearly revealed that it is not always possible for these mixtures to reach all spermatozoa in the genital tract. The Zonite concern itself was further ordered to discontinue disseminating any advertisement which represented that Zonite Liquid, when used as a mouth wash or gargle, will destroy tobacco or onion breath or other mouth odors, beyond the extent to which it can reach and oxidize odoriferous substances with which such odors may originate.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Naturopathy: Right of Licentiate to Administer Sulfocyanate.—The defendant, a licensed naturopath, was convicted of administering a toxic drug in violation of the naturopathic practice act, and from such conviction he appealed to the Supreme Court of Tennessee.

At the trial a witness testified that he went to an office in Memphis owned and operated by the defendant which bore a sign reading "X-ray Clinic Physicians." There was no indication that the office was the place of business of a naturopathic physician. The witness stated that he found the defendant sitting behind a desk and was immediately greeted by him with the words "You look like you are in quite a bit of pain. What seems to be troubling you, sir?" After an examination the defendant told the witness that "he was eaten up with sinus," that he had bad stomach ulcers and that his blood pressure was abnormally and dangerously high. The witness denied that he actually suffered from any of these conditions. After administering certain electrical treatments the defendant gave the witness three prescriptions, one of which was for 4 ounces of sulfocyanate. The witness paid $5 for the treatment and prescriptions. Another witness testified that the defendant had professionally prescribed sulfocyanate for his wife. A druggist who had a place of business near that of the defendant testified that he had filled a number of prescriptions for sulfocyanate on the order of the defendant. By the druggist and several doctors it was proved that sulfocyanate was a very dangerous and toxic drug and that an overdose would result fatally in complete cardiac collapse.

Naturopaths were first licensed in Tennessee under chapter 49, Public Acts of 1943, under which licentiates could practice "Nature cure or health by natural methods," which was in that act defined to be ". . . the prevention, diagnosis, and treatment of human injuries, ailments, and diseases by means of any one or more of the psychological, physical or mechanical, chemical or material, forces or agencies of nature." After the passage of this act it was found that licentiates construed this language to include the right to give any medical treatment and perform any surgical operation. This, said the Supreme Court, was not an entirely unreasonable or impossible construction of the broad scope of the glittering generality of the language used in the act. The legislature therefore at its 1945 session undertook to correct this situation and limit the treatments and operations that might be lawfully given and performed by licensed naturopaths. That this was the sole legislative intent is clear from the language of the amendment:

> "Nature cure or health by natural methods" (and) is defined as the prevention, diagnosis, and treatment of human injuries, ailments, and diseases by the use of such physical forces, as air, light, water, vibration, heat, electricity, hydrotherapy, psychotherapy, dietetics, or massage, and the administration of botanical and biological drugs, but shall not include the administration of narcotics, sulfa drugs and other toxic drugs, or powerful physical agents, such as x-ray and radium therapy, or surgery . . .

If, as defendant insists, the only purpose of the amendment was to define or explain naturopathy, the legislature would reasonably have stopped its definition of naturopathy after the words "biological drugs" in the foregoing quotation. But we think it clear, said the court, that the legislative intent went further than to "define" or "explain," since it added to the complete definition the express prohibition of administering toxic drugs and using x-ray, radium therapy and surgery. We agree with the rules stated by defendant that penal, definitive and explanatory statutes and those which restrain a citizen in the conduct of a trade or profession are to be strictly construed and not extended by implication. But no matter how strictly we construe the pertinent part of the act of 1945, as quoted, there is a direct and explicit prohibition laid by the legislature in clear and positive terms on those licensed to practice naturopathy, forbidding them from "administering toxic drugs." As we have stated, this express prohibition was unnecessary to the definition of the word "naturopathy," by the legislature, and the only reasonable inference from the insertion of the prohibition in express terms was that the legislature thereby undertook to make a disregard of the prohibition a violation of law. Any other construction would make of the prohibitory part of the amendment a vain and useless thing and give no force to the clear intent of the legislature. The defendant argued that there was no necessity for the legislature to create a "new offense," since penal legislation to curb the unlawful practice of medicine was already in the code. It is no part of the function of this court, however, concluded the court, to determine the "necessity," expediency or propriety of legislation or to invade the exclusive and independent province of the legislature in determining such necessity or expediency.

The defendant also argued that since he merely "prescribed" the toxic drug he was not proved guilty of its "administration." The court said that there is no merit in this contention under a wealth of authority. "The word 'administer' was clearly intended to cover the whole ground named, making it an offense to give, furnish, supply, provide with, or cause to be given, furnished, supplied, or provided with, or taken, any such drug, medicine, or substance, with the intent named in said section. And said word embraced and was intended to embrace every mode of giving, furnishing, supplying, providing with, or causing to be taken any such drug, medicine, or substance."

These and the other of the defendant's contentions, having been overruled, the judgment of conviction was sustained.—*Estep v. State, 192 S. W. (2d) 706 (Tenn., 1946).*

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

BOARDS OF MEDICAL EXAMINERS
BOARDS OF EXAMINERS IN THE BASIC SCIENCES

Examinations of the boards of medical examiners and boards of examiners in the basic sciences were published in THE JOURNAL, June 29, Page 790.

NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS: *Part I.* Various centers, Sept. 30-Oct. 2. Final date for filing application is Sept. 1. *Part II.* Dec. 16-17. Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia 2.

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Oral.* New York, Oct. 9-14. Sec., Dr. Paul M. Wood, 745 Fifth Ave., New York 22.

AMERICAN BOARD OF DERMATOLOGY & SYPHILOGY: *Written.* Various centers, Oct. 7. Final date for filing application is Aug. 15. *Oral.* Cleveland, Dec. 5-7. Sec., Dr. George M. Lewis, 66 E. 66th St., New York 21.

AMERICAN BOARD OF INTERNAL MEDICINE: *Oral.* Chicago, Oct. 30-31. Final date for filing application is Aug. 15. Asst. Sec., Dr. W. A. Werrell, 1 W. Main St., Madison 3, Wis.

AMERICAN BOARD OF OBSTETRICS & GYNECOLOGY: *Written. All Groups. Part I.* Various centers, Feb. 7. Final date for filing application is Nov. 1. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh 6.

AMERICAN BOARD OF OPHTHALMOLOGY: *Oral. All Groups. Parts I and II.* New York, June 1947. Final date for filing application is Dec. 1. Chicago, October 1947. Final date for filing application is March 1. Sec., Dr. S. J. Beach, 56 Ivie Rd., Cape Cottage, Me.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY: *Part II. Oral.* Chicago, January. Final date for filing application is Nov. 1. Sec., Dr. Guy A. Caldwell, 1136 W. Sixth St., Los Angeles 14.

AMERICAN BOARD OF OTOLARYNGOLOGY: *Oral.* Chicago, Oct. 8-12. Sec., Dr. D. M. Lierle, University Hospitals, Iowa City, Ia.

AMERICAN BOARD OF PSYCHIATRY & NEUROLOGY: New York, December. Final date for filing application is Sept. 30. Sec., Dr. Walter Freeman, 1028 Connecticut Ave. N.W., Washington, D. C.

AMERICAN BOARD OF RADIOLOGY: Chicago, Nov. 27 to Dec. 1. Final date for filing application is Sept. 1. Sec., Dr. B. R. Kirklin, Mayo Clinic, Rochester, Minn.

AMERICAN BOARD OF UROLOGY: *Oral.* Chicago, February 1947. Final date for filing application is Nov. 15. Sec., Dr. Gilbert J. Thomas, 1409 Willow St., Minneapolis 4.

Current Medical Literature

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in continental United States and Canada for a period of three days. Three journals may be borrowed at a time. Periodicals are available from 1936 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

American Journal of Medical Sciences, Philadelphia

211:385-512 (April) 1946

Course of Filariasis After Removal from Endemic Area. A. W. Behm and J. M. Hayman Jr.—p. 385.
*Treatment of Bacterial Endocarditis with Penicillin: Results of 17 Consecutive Unselected Cases. R. Mokotoff, W. Brams, L. N. Katz and Katharine M. Howell.—p. 395.
*Observations on Treatment of Scarlet Fever with Penicillin. B. B. Breese, R. F. Farrington, F. S. Greenspan and others.—p. 417.
Slowly Progressive Occlusive Thrombosis of Abdominal Portion of Aorta. R. Straus, R. Dominguez and R. Merliss.—p. 421.
Importance of Urinary Chloride Determination in Treatment of Patients Having Pyloric Obstruction: Review of 50 Cases of Duodenal Ulcer. J. Sanchez-Vegas and E. N. Collins.—p. 428.
Roentgen Studies of Spleen. J. M. Dell Jr. and H. F. Klinefelter Jr. —p. 437.
Emotional Factors in Obesity. W. M. Nicholson.—p. 443.
Value of Speransky's Method of Spinal Pumping in Treatment of Rheumatic Fever and Rheumatoid Arthritis. T. Gillman and J. Gillman. —p. 448.
Change in Plasma Volume and Body Weight in Normal Subjects After Low Salt Diet, Ammonium Chloride and Mercupurin. R. H. Lyons, S. D. Jacobson and N. L. Avery.—p. 460.
Relation of Arterial Pulse Pressure to Arteriovenous Oxygen Difference, Especially in Arterial Hypertension. F. L. Apperly and M. Katharine Cary.—p. 467.
Agglutination Reaction for Hemolytic Streptococci in Rheumatoid Arthritis: Its Significance in Diagnosis and Treatment. R. L. Cecil and P. F. deGara.—p. 472.
Tumors of Skin: Part I. Review of Recent Literature. H. Beerman. —p. 480.
Cigaret Smoke, Irritation and the Throat. N. D. Fabricant.—p. 505.

Penicillin in Bacterial Endocarditis.—Mokotoff and his co-workers treated 17 unselected cases of bacterial endocarditis with penicillin alone. Fourteen patients have recovered, the longest follow-up being twenty months, the shortest eight months. Two patients have died during treatment and 1 patient who was sent home as a treatment failure died at home. The necropsies showed infectious vegetations. One of the recovered patients had progressive congestive heart failure develop and died eight months later. At necropsy healed endocarditis was found. Eleven patients were treated exclusively by intramuscular injections of penicillin every hour day and night for three to four weeks, 200,000 to 300,000 units being used daily. The authors recommend this method for use against the average case of bacterial endocarditis, since it maintains an adequate bacteriostatic level of penicillin and is effective. In the remaining cases interrupted intramuscular injection of the drug was combined alternately with a continuous intravenous or intramuscular drip. Patients with more resistant organisms (sensitivity 0.06 Oxford unit or greater) should receive larger daily dosages over longer periods of time. The authors conclude that penicillin alone is an effective agent in the treatment of subacute bacterial endocarditis.

Treatment of Scarlet Fever with Penicillin.—Breese and his associates of Epidemiology Unit No. 82 of the U. S. Naval Hospital, Treasure Island, treated 118 patients for scarlet fever. In 76 per cent of the cases the initial throat culture was positive for beta hemolytic streptococci. Three dosage schedules were utilized: 240,000 units over a three day period, 360,000 units over a six day period and 480,000 units over an eight day period. The clinical response to penicillin was good in all cases. The incidence of complications was highest (31 per cent) in the 240,000 unit series and lowest (6 per cent) in the 480,000 unit series. The rate of recurrence of positive throat cultures for the organism was highest (77 per cent) in the 240,000 unit series and lowest (8 per cent) in the 480,000 unit series. The authors conclude that the use of 480,000 units of penicillin over an eight day period is a satisfactory method for the treatment of scarlet fever and for preventing a beta-hemolytic streptococcus carrier state.

American Journal of Ophthalmology, Cincinnati

29:389-514 (April) 1946

Relation of Eye to Immunity in Syphilis, with Special Reference to Pathogenesis of Interstitial Keratitis. A. C. Woods and A. M. Chesney. —p. 389.
Atopic Cataracts: Report of 4 Cases. F. C. Cordes and R. Cordero-Moreno.—p. 402.
Surgical Treatment of Strabismus. D. B. Kirby.—p. 408.
Center for Ocular Divergence: Does It Exist? R. G. Scobee and E. L. Green.—p. 422.
Periarteritis Nodosa with Involvement of Choroidal and Retinal Arteries. J. Goldsmith.—p. 435.
Further Studies on Use of Furmethide in Treatment of Glaucoma. Ella U. Owens and A. C. Woods.—p. 447.
Oral Penicillin in Ocular Inflammations. P. J. Leinfelder and W. D. Paul.—p. 450.
Methods of Lid Repair and Reconstruction. S. A. Fox.—p. 452.
*Iridocyclitis Associated with Chickenpox: Case. J. W. Hallett.—p. 459.

Iridocyclitis Associated with Chickenpox.—Hallett reports the case of a boy aged 7 who developed chickenpox on April 26, 1945. On April 28 there was a slight discharge from his right eye and the eye was red. The secretion from the eye disappeared but the eye remained red. On May 2 the palpebral conjunctiva of the right eye was mildly injected, the bulbar conjunctiva more intensely so, and a moderate ciliary flush was noted. Biomicroscopic examination revealed fine precipitates and a few small keratitic precipitates on the posterior corneal surface. A moderate number of cells freely floating in the thermal convection current of the aqueous and aqueous flare were also noted. A diagnosis of acute iridocylitis of the right eye was made. The application of hot wet packs and the instillation of 1 per cent atropine sulfate solution in the right eye three times daily were prescribed. Rapid clearing of all eye signs occurred, so that by May 7 the conjunctiva no longer appeared congested. On May 10 a moderate bulbar conjunctival injection and ciliary flush were again observed. The pupil was about three fourths dilated. Numerous discrete, lardaceous keratitic precipitates were seen on the posterior corneal surface. A moderate number of floating cells in the anterior chamber and a faint aqueous flare reappeared. On May 16, 1945, except for the dilated pupil, the eye was clinically normal and has remained so to date.

American Journal of Physiology, Baltimore

146:1-160 (April) 1946

In Vivo Study of p_H of Synovial Fluid in Dogs. N. R. Joseph, C. I. Reed and E. Homburger.—p. 1.
Effect of Concussion on Polarizability of Brain. E. A. Spiegel, G. C. Henny, H. T. Wycis and M. Spiegel-Adolf.—p. 12.
Peripheral Visual Acuity of 100 Subjects Under Scotopic Conditions. F. N. Low.—p. 21.
Influence of Blood Sugar Levels on Resistance to Low Oxygen Tension in Cat. D. C. Smith and R. H. Oster.—p. 26.
Effects of High Acceleratory Forces and Their Alleviation. S. W. Britton, E. L. Corey and G. A. Stewart.—p. 33.
Effect of Different Concentrations of Nicotinic Acid Amide on Work Output of Perfused Frog Muscles. N. W. Shock and W. H. Sebrell. —p. 52.
Diamine Oxidase (Histaminase) Activity of Kidney and Other Organs in Hypersensitive State. H. N. Eisen.—p. 56.
Cardiovascular Responses to Breathing of 100 per Cent Oxygen at Normal Barometric Pressure. W. V. Whitehorn, A. Edelmann and F. A. Hitchcock.—p. 61.
Tolerance of Man to Cold as Affected by Dietary Modifications: Proteins Versus Carbohydrates, and Effect of Variable Protective Clothing. R. W. Keeton, E. H. Lambert, N. Glickman and others.—p. 66.
Id.: Carbohydrate Versus Fat and Effect of Frequency of Meals. H. H. Mitchell, N. Glickman, E. H. Lambert and others.—p. 84.
Inhibition of Erythema of Sunburn by Large Doses of Ultraviolet Radiation. H. F. Blum and W. S. Terus.—p. 97.
Erythemal Threshold for Sunburn. H. F. Blum and W. S. Terus. —p. 107.
Evaluation of Protective Measures Against Sunburn. H. F. Blum, M. Eicher and W. S. Terus.—p. 118.
Capillary Permeability: Perfusion of Frog and Guinea Pig Hind Limbs. G. H. Palmer and G. H. Joseph.—p. 126.
Adrenal Function Following Ovariectomy in Rat. D. E. Smith.—p. 133.
Inactivation of Placental Toxin by Human Serum. C. L. Schneider. —p. 140.
Renal Tubular Reabsorption, Metabolic Utilization and Isomeric Fractionation of Lactic Acid in Dog. F. N. Craig.—p. 146.

American Journal of Public Health, New York

36:321-438 (April) 1946

Opportunities for International Health Activities. H. R. Leavell.—p. 321.
Bacteriologic Procedures in Evaluation of Methods for Control of Air Borne Infection. W. F. Wells, C.-E. A. Winslow and Elizabeth C. Robertson.—p. 324.
Microbiologic Examination of Foods: Tentative Methods for Microbiologic Examination of Frozen Foods. H. E. Goreslin.—p. 332.
Slective Service Rejection Statistics and Some of Their Implications. G. St. J. Perrott.—p. 336.
Chronic Disease: A Problem That Must Be Faced. E. S. Rogers.—p. 343.
In-Service Training in State Department of Health. F. J. Underwood. —p. 351.
Health Education. L. K. Frank.—p. 357.
Infectious Hepatitis—Presumably Food Borne Outbreak. Margaret R. Read, Huldah Bancroft, J. A. Doull and R. F. Parker.—p. 367.
Pertussis Vaccine Prepared with Phase I Cultures Grown in Fluid Medium. Sophia A. Cohen and Mary W. Wheeler.—p. 371.
Public Health Nurse in Department of Health. Katharine Faville. —p. 377.
State Variation in Collection of Reportable Disease Statistics. A. Ciocco, Margaret D. West and Marion E. Altenderfer.—p. 384.
Disinfection of Air by Germicidal Vapors and Mists. O. H. Robertson. —p. 390.

Am. J. Roentgenol. & Rad. Therapy, Springfield, Ill.

55:377-524 (April) 1946

*Results of Roentgen Treatment of Leukemia. B. P. Widmann.—p. 377.
Hematologic and Clinical Characteristics of Leukemia. R. L. Haden. —p. 387.
Roentgen Study of Chronic Pulmonary Coccidioidomycosis. H. W. Jamison.—p. 396.
Myelographic Diagnosis of Extramedullary Cervical Spinal Cord Tumors. B. S. Epstein and L. M. Davidoff.—p. 413.
*Ehlers-Danlos Syndrome. J. F. Holt.—p. 420.
Quantitative Roentgenographic Method for Determination of Left Auricular Size: Normal Standards. A. L. Bachman.—p. 427.
Retrograde Abdominal Aortography. P. L. Fariñas.—p. 448.
Right Sided Aortic Arch: Case Report. E. E. Fong.—p. 452.
Supine Projection in Diagnosis of Lesions of Corpus and Posterior Wall of Stomach. A. Oppenheimer.—p. 454.
*Coagulogram as Critical Indicator of Irradiation Effect: Preliminary Report Based on Seven Year Survey of Personnel of Department of Radiology, Royal Victoria Hospital. J. Kaufmann.—p. 464.
Effect of Roentgen Therapy on Experimental Virus Pneumonia: I. Feline Virus Pneumonia. G. J. Baylin, I. N. Dubin and W. G. Gobbel Jr. —p. 473.
Id.: II. Pneumonia Produced in White Mice by Swine Influenza Virus. I. N. Dubin, G. J. Baylin and W. G. Gobbel Jr.—p. 478.

Roentgen Treatment of Leukemia.—Widmann studied 49 patients with chronic leukemia treated with irradiation at the Philadelphia General Hospital. Of these 28 died and 21 are still under active treatment. The life span after treatment was instituted was 39.7 months for the patient with lymphoid and 32.2 months for the patient with myeloid leukemia. The life span was probably increased in a small percentage of cases.

Ehlers-Danlos Syndrome.—Holt reports 2 cases of Ehlers-Danlos syndrome in 2 sisters aged 18 and 16 years respectively. This syndrome is well established on the basis of clinical observations consisting of hyperelasticity and hyperfragility of the skin, hypermobility of the joints and the formation of pseudotumors, papyraceous scars and numerous subcutaneous nodules. In the author's cases the subcutaneous nodules confined to the extremities calcified, as they often do, and became roentgenologically visible. Calcification was most pronounced inside the fibrous outer capsule with the central portion consisting largely of radiolucent noncalcified fat. The presence of necrotic fat and foreign body giant cells within the nodules was demonstrated on microscopic examination. This fact, as well as the distribution of these "spherules" on the extensor surfaces of the extremities, suggests that repeated trauma may be an important etiologic factor.

Coagulogram as Critical Indicator of Irradiation Effect.—Kaufmann presents a preliminary report of his study of the mechanism of coagulation of the blood of both professional and technical personnel (33 persons, 15 men and 18 women) apt to be exposed to minimal irradiation in the course of their routine work at the Royal Victoria Hospital in Montreal. Samples of venous and capillary blood were taken in the morning after the subjects had an ordinary breakfast. The coagulogram was done on fresh unoxalated venous blood. Capillary blood was used for primary and secondary studies and for corroboration of the data. Estimations of red blood cells, determinations of hemoglobin levels, readings of the mean hemoglobin concentration and counts of white blood cells were performed. The coagulogram was altered fairly consistently both as to complete coagulation and as to prothrombin time, with a high normal fibrin time. A lengthening of the prothrombin time from a maximum normal of thirty seconds to forty-five seconds warrants a "caution" to the person examined and renewed vigilance and discipline in observation of the protective rules in the x-ray and radium laboratories. If the prothrombin time should be lengthened to sixty seconds or more (possibly indicative of a reduction in prothrombin concentration of 50 per cent) the person should be temporarily removed from any exposure area and the deficiency neutralized by every possible means. If the condition should not be controlled or should progress, a long or permanent separation of the person from any potential exposure is considered imperative.

American Journal of Surgery, New York

71:439-574 (April) 1946

Urinary Calculi in Recumbent Fracture Patients. H. C. Fett and J. T. Kane.—p. 441.
Splenectomy for Trauma: Practical Points in Surgical Technic. J. E. Dunphy.—p. 450.
Complete Duodenal Obstruction in the Newborn. N. F. Hicken, S. Snow, Q. B. Coray and E. G. Jackson.—p. 461.
*Noneclamptic Late Toxemias Treated by Vitamin E. E. Shute.—p. 470.
*Primary Malignant Tumors of Spleen, with special Reference to Endotheliomas. J. A. Lazarus and M. S. Marks.—p. 479.
Surgical Correction of Chin Malformations. L. W. Eisenstodt.—p. 491.
Primary Resection of Malignant Lesions of Large Bowel. W. M. McMillan.—p. 502.
Gastroduodenal Invagination Due to Submucous Lipoma of Stomach. W. H. Hobbs and S. E. Cohen.—p. 505.
Varicose Veins: Ten Years' Observation on Treatment. L. K. Stalker. —p. 519.
Orchiectomy in Treatment of Carcinoma of Prostate. D. W. Chase, K. L. Burt and E. Hess.—p. 522.
Desiccation of Residual Red Blood Cells from Plasma Production. M. E. Koons and L. Peterson.—p. 526.
Acromioclavicular Joint Injuries: Modified Conservative Form of Treatment. D. Goldberg.—p. 529.
Mean Disposition of Tibial Shaft Fractures. J. E. Brumback Jr.—p. 532.
Venous Circulation Is Audible Throughout System and in Fibroid Uteri. L. Drosin.—p. 534.
Splenosis: Intraperitoneal Transplants Following Traumatic Rupture of Spleen. G. H. Bunch and C. G. Spivey.—p. 542.

Noneclamptic Late Toxemias of Pregnancy Treated by Vitamin E.—Shute studied the effect of vitamin E on 128 women with noneclamptic late toxemias of pregnancy. These women were usually seen for the first time in the first half of their pregnancies. All but one were ambulant throughout and engaged in their usual tasks. All had "positive" blood estrogen values and were treated with vitamin E only with or without salt restriction. Seventy-nine per cent never attained a blood pressure above 160/100. At delivery 43 per cent had lower pressures than the highest attained during pregnancy. Thirty-eight per cent had no edema at delivery and 30 per cent had only slight edema. Eighty-eight per cent had no albuminuria at delivery and only 6 per cent had a 1 plus or more. About 92 per cent of these pregnancies ended at term. Only 4 per cent were induced or sectioned before term. There were 6 per cent stillbirths. This type of toxemia constitutes 85 per cent of the toxemias seen by the author.

Primary Malignant Tumors of Spleen.—Lazarus and Marks report a case of angiosarcoma of the spleen and call attention to tumors which arise from the splenic sinuses. In the compilations of Smith and Rusk up to 1923, and that of Hausmann and Gaarde from 1923 to 1940, there were 37 instances of tumors arising from the endothelial lining of splenic sinuses out of a combined total of 157 primary malignant tumors of the spleen. Careful examination of the morphologic features of these tumors fails to show a clearcut differentiation between them to warrant the existing varied terminology. A great deal of confusion may be avoided if the tumors are placed in two main categories: (1) nonvascular sarcomas arising from the endothelium of splenic sinuses and (2) malignant angiomas arising from the endothelium of splenic sinuses. The pronounced symptoms are a rapidly growing left upper abdominal tumor, persistent or intermittent pain, tenderness over the spleen and cachexia. These tumors are highly malignant, metastasize rapidly and frequently involve the liver, and less frequently the lungs, regional lymph nodes and pancreas.

American Review of Tuberculosis, New York

53:291-410 (April) 1946

Standardization of Photofluorographic Equipment. R. H. Morgan and W. W. Van Allen.—p. 291.
Apical Localization of Phthisis: Its Significance in Treatment by Prolonged Rest in Bed. W. Dock.—p. 297.
Pulmonary Function Tests: Discussion of Ventilatory Tests: Description of Method for Measuring the Diffusion of Oxygen and Carbon Dioxide in Lungs. G. G. Ornstein, M. Herman, Marcella W. Friedman and E. Friedlander.—p. 306.
Surgery in Tuberculous Patient with Amyloidosis. O. Auerbach and Marguerite G. Stemmermann.—p. 333.
Hycodan: Dihydrocodeinone. P. Stein and P. Lowy.—p. 345.
Depth Growth of Acid Fast Bacilli in Liquid Media: I. Technic. W. F. Drea.—p. 353.
Id.: II. Study of Various Technical and Theoretical Aspects. W. F. Drea.—p. 363.
Diaminodiphenylsulfone Derivatives: Therapeutic Effects of Two New Derivatives in Experimental Tuberculosis. F. T. Callomon and G. W. Raiziss.—p. 374.
Effect of Human Gastric Juice on Tubercle Bacilli, with Special Reference to Diagnosis of Active Pulmonary Tuberculosis. C. H. Kramer.—p. 385.
Anatomic Studies on Human Tuberculosis: XXII. Primary Foci Without Lymph Node Changes; Additional Observations. K. Terplan.—p. 393.

Annals of Internal Medicine, Lancaster, Pa.

24:589-774 (April) 1946

*Meningococcic Infections in Army Staging Area: Analysis of 63 Cases Without Fatality from Standpoint of Early Diagnosis and Treatment. A. A. Goldbloom, E. H. Nickman and E. E. P. Seidmon.—p. 589.
Meningococcemia: Description of Clinical Picture and Comparison of Efficacy of Sulfadiazine and Penicillin in Treatment of 30 Cases. J. M. Kinsman and C. A. D'Alonzo.—p. 606.
Postdiphtheritic Polyneuritis: Report of 5 Cases with Albuminocytologic Dissociation Simulating Guillain-Barré's Syndrome. M. H. Delp, G. F. Sutherland and E. H. Hashinger.—p. 618.
*Toxic Reactions Accompanying Second Courses of Sulfonamides in Patients Developing Toxic Reactions During Previous Course. H. F. Dowling, H. L. Hirsh and M. H. Lepper.—p. 629.
Apathetical Response to Hyperthyroidism: Report of 2 Cases. Laura Hare and J. O. Ritchey.—p. 634.
Salicylate Toxicity: Probable Mechanism of Its Action. C. M. Caravati and E. F. Cosgrove.—p. 638.
Plasma Volume in Laënnec's Cirrhosis of Liver. G. A. Perera.—p. 643.
Serial Prothrombin Estimations in Cardiac Patients: Diagnostic and Therapeutic Implications; Use of Dicumarol. E. Cotlove and J. J. Vorzimer.—p. 648.
Postmortem Examination in Cases of Suspected Homicide. M. Helpern.—p. 666.
*Excessive Self-Administered Dosages of Thyroid Extract. D. Goldfinger.—p. 701.

Meningococcic Infections in Army Staging Area.—Goldbloom and his associates treated 63 consecutive cases of meningococcic infection at an army port of embarkation during the period from July 1942 to July 1945. Sulfadiazine and its sodium salt were the only chemotherapeutic drugs used. Intravenous administration proved the most rapid and satisfactory means of securing a therapeutic effect. The average total dose per patient was 54.7 Gm. The optimum total dose of sulfadiazine in most cases of meningococcic infections lies between 50 and 60 Gm. No correlation was found between blood sulfadiazine concentrations and the clinical response obtained. Complications due to the disease and toxic reactions following the use of sulfadiazine were negligible. All patients were returned to duty after an average period of 44.1 hospital days. No fatalities occurred.

Toxic Reactions to Sulfonamides.—Dowling and his associates administered a second course of a sulfonamide drug to 78 adult patients who presented fever, dermatitis or conjunctivitis during the first course. The particular drugs used were sulfathiazole, sulfadiazine and sulfamerazine. Among 48 patients to whom the same sulfonamide was given during both courses, 33 (69 per cent) had toxic manifestations develop, while among the 30 patients who received a different sulfonamide during the two courses only 5 (17 per cent) experienced a toxic reaction. Neither the number of toxic reactions developing during the first course nor the particular sulfonamide drugs administered nor the intervals elapsing between the two courses had any effect on the appearance of toxic reactions during the second course. Third courses were administered to 9 patients who had manifested toxic reactions to the first two courses of the same sulfonamide. Only 5 of these patients had a toxic manifestation. All attempts to prevent toxic reactions from recurring were unsuccessful. It is concluded that the patient who has previously experienced fever, dermatitis or conjunctivitis when receiving one of the sulfonamide compounds will run more risk of a similar reaction during a subsequent period of treatment with any of the sulfonamide drugs, even though a considerable time may have elapsed between courses. If such a patient must be given a sulfonamide again, he should receive a different compound from the one used during the first course and should be observed carefully for toxic reactions.

Excessive Dosages of Thyroid.—Goldfinger reports that a woman aged 28 who was given thyroid in daily doses of 4 to 6 grains (0.25 to 0.4 Gm.) with the usual dietary instructions for weight reduction consumed large doses of thyroid up to 100 grains (6.5 Gm.) daily over a period of one year for the concealed purpose of self destruction. The loss of weight amounted to more than half of the initial weight recorded, from 166½ pounds (75.6 Kg.) to 80 pounds (36.3 Kg.). Electrocardiographic study at the height of thyroid feeding revealed T waves of definitely decreased amplitude, and as the thyroid was withdrawn the T waves increased in amplitude. The patient, prior to death, was in a normal mental state and retained as her only obvious residue an unstable vascular system, manifested by a sinus tachycardia which developed on extraordinary activity. The patient died suddenly two and one-half hours after she was seized with severe precordial pain while asleep. Permission for a necropsy could not be secured.

Annals of Surgery, Philadelphia

123:481-704 (April) 1946

Address of President: The Transylvania Medical Library. C. A. Vance.—p. 481.
Newer Concepts in Treatment of Paralyzed Patients Due to Wartime Injuries of Spinal Cord: Outline of Plan and Statistical Analysis. D. H. Poer.—p. 510.
Id.: II. Neurosurgical Complications. C. W. Elkins and W. R. Wegner.—p. 516.
Methods of Closure of Decubitus Ulcers in Paralyzed Patient. D. E. Barker, C. W. Elkins and D. H. Poer.—p. 523.
Battle Injuries of Arteries in World War II: Analysis of 2,471 Cases. M. E. DeBakey and F. A. Simeone.—p. 534.
Traumatic Arteriovenous Fistula Involving Abdominal Aorta and Inferior Vena Cava. J. deJ. Pemberton, P. H. Seefeld and N. W. Barker.—p. 580.
Cirsoid Aneurysm of Scalp: Report of 4 Cases. D. C. Elkin.—p. 591.
Management of Aneurysms of Lower Extremities. G. D. Lilly.—p. 601.
Plastic Surgery in World War I and in World War II. J. S. Davis.—p. 610.
Use of Cancellous Bone in Repair of Defects About Jaws. T. G. Blocker Jr. and L. R. Weiss.—p. 622.
Muscle Flap Transplant for Relief of Painful Monarticular Arthritis (Aseptic Necrosis) of Hip. C. S. Venable and W. G. Stuck.—p. 641.
Fixation of Tendons, Ligaments and Bone by Bunnell's Pull-Out Wire Suture. J. A. Key.—p. 656.
Muscle Flap Closure of Cavity Resulting from Lung Abscess. W. H. Prioleau.—p. 664.
Dyschondroplasia. I. Cohn.—p. 673.
Traumatic Osteomyelitis: Use of Skin Grafts—Part II. Subsequent Treatment. R. P. Kelly, L. M. Rosati and R. A. Murray.—p. 688.
Repair of Bony Defects Associated with Osteomyelitis. G. A. Caldwell.—p. 698.

Archives of Dermatology and Syphilology, Chicago

53:213-306 (March) 1946

*Dermatophytosis and Other Forms of Intertriginous Dermatitis of Feet: Comparison of Therapeutic Methods. F. D. Weidman and F. A. Glass.—p. 213.
Penicillin Ointment in the Treatment of Infections of Skin. Helen Reller Gottschalk, M. F. Engman Jr., M. Moore and R. S. Weiss.—p. 226.
Acne Indurata in Identical Twins Treated by Penicillin. H. H. Hazen.—p. 232.
Penicillin in Topical Treatment of Pyogenic Infections of Skin: Clinical and Laboratory Observations. M. Waisman and J. S. Gots.—p. 234.
Tokelau in Guatemala. J. E. Gomez Ch.—p. 243.
Pemphigus Vulgaris: Successful Results Following Transfusion with Blood from Persons Who Had Recovered from Disease. A. W. Grace and L. D. Hellman.—p. 249.
Sporotrichosis with Radiate Formation in Tissue: Report of Case. M. Moore and L. V. Ackerman.—p. 253.
Contact Dermatitis: Analysis of Tabulation of All Cases Proved in Single Year. J. B. Howell.—p. 265.

Therapy of Dermatophytosis and Dermatitis of Feet.—Under the excellent control and uniformity of conditions of a penitentiary, 117 inmates having winter dermatophytosis were selected by Weidman and Glass as test objects for six different forms of treatment. Patients under all plans of therapy were instructed to keep their feet clean and dry. The following six medicaments were employed: (1) metacresylacetate, (2) boric

acid foot powder, (3) ointment of benzoic and salicylic acid N. F., (4) iodolate, (5) pomeio and (6) zephiran chloride. The authors regard metacresylacetate as the best but found that a simple boric acid powder was almost as efficient. Response to treatment was poorest in hyperkeratotic lesions and best in vesicular and macerated ones. Negroes were far more liable to hyperkeratotic and to macerated lesions and to plantar vesicles. A remarkably high percentage (37.9) of positive cultures was secured, although only one attempt was made for each patient. They were obtained twice as frequently prior to age 41, were obtained far more frequently from Negroes (51:33) and were secured from 57 per cent of the hyperkeratotic lesions. Tricophyton interdigitale was, as usual, by far the commonest species. Infections due to Tricophyton purpureum were confined, almost entirely, to years prior to middle life and occurred twice as frequently in the white race. Epidermophyton inguinale was isolated only once.

Archives of Internal Medicine, Chicago

77:237-366 (March) 1946

Nonsuppurative Poststreptococcic (Rheumatic) Pneumonitis: Pathologic Anatomy and Clinical Differentiation from Primary Atypical Pneumonia. C. R. Jensen.—p. 237.

Danger of Intravenous Injection of Protein Solutions After Sudden Loss of Renal Tissue. T. Addis, Evalyn Barrett, W. Lew, L. J. Poo and D. W. Yuen.—p. 254.

*Sulfadiazine and Penicillin for Hemolytic Streptococcus Infections of Upper Respiratory Tract: Evaluation in Tonsillitis, Nasopharyngitis and Scarlet Fever. W. W. Spink, L. A. Rantz, P. J. Boisvert and H. Coggeshall.—p. 260.

Reiter's Disease: Review of Literature, with Presentation of Case. B. L. Vallee.—p. 295.

Cardiac Enlargement in Fever Therapy Induced by Intravenous Injection of Typhoid Vaccine. H. S. Weens and A. Heyman.—p. 307.

Rheumatic Fever in Naval Enlisted Personnel: I. Analysis of Major Manifestations Observed, Factors Involved in Its Occurrence and Cardiac Residua. R. C. Manchester.—p. 317.

Syphilis: Review of Recent Literature. C. F. Mohr, V. Scott, R. D. Hahn and J. E. Moore.—p. 332.

Sulfadiazine and Penicillin for Respiratory Streptococcic Infections.—Spink and his associates investigated the therapeutic effectiveness of sulfadiazine and penicillin in hemolytic streptococcus infections, such as nasopharyngitis, tonsillitis and scarlet fever. A total of 210 young men were observed in one training area between December 1943 and May 1944. Penicillin therapy followed by the administration of sulfadiazine apparently had no advantages over that with penicillin alone in the treatment of tonsillitis. This combination did not produce too satisfactory results in patients having scarlet fever. Penicillin therapy did not appear to prevent the subsequent development of acute rheumatic fever in patients having nasopharyngitis, tonsillitis and scarlet fever due to alpha hemolytic streptococci.

Archives of Ophthalmology, Chicago

35:199-334 (March) 1946

Paralysis of Ocular Elevation With and Without Ptosis. D. B. Kirby.—p. 199.

Paralysis of Convergence with Bilateral Ring Scotoma Following Injury to Occipital Region. A. Feigenbaum and W. Kornblueth.—p. 218.

*Keratoconjunctivitis Sicca and Buccoglossopharyngitis Sicca with Enlargement of Parotid Glands: Report of 2 Cases of Sjögren's Syndrome, with Pathologic Study of Lacrimal Gland and Parotid Glands in 1 Case. F. C. Lutman and B. V. Favata.—p. 227.

Vascular Disease Associated with Angioid Streaks of Retina and Pseudoxanthoma Elasticum. H. G. Scheie and N. E. Freeman.—p. 241.

Tests for Detection and Analysis of Color Blindness: III. The Rabkin Test. L. H. Hardy, Gertrude Rand and M. Catherine Rittler.—p. 251.

*Hyperpyrexia in Treatment of Ocular Conditions Due to Syphilis. H. C. Knight and W. S. Schachat.—p. 271.

Partial Cataract in Men of Military Age. J. H. Doggart.—p. 280.

The Cornea: VIII. Permeability of Excised Cornea to Ions, as Determined by Measurements of Impedance. Margaret Holt and D. G. Cogan.—p. 292.

Instrument for Keratoplasty: New Forceps to Facilitate Preparatory Suture of Transplant. H. Arruga.—p. 299.

Keratoconjunctivitis Sicca (Sjögren's Syndrome).—Lutman and Favata report 2 cases of keratoconjunctivitis sicca and describe microscopic pathologic changes in a lacrimal gland and in the parotid glands of 1. When the first patient was 37, her eyes became irritated; the second patient complained of a sore mouth at the age of 44, at which time her mouth had already been dry for nine years. For nine and fifteen years respectively the patients had had constant and increased irritation of the eyes, together with cracking at the corners of the mouth and irritation of the buccal mucous membranes and the tongue, accompanied with dryness of the mouth. None of these complaints ever completely disappeared. Both patients had had acute parotiditis; the right parotid gland of the second patient had remained enlarged for seven years. Sjögren's syndrome has been considered by some investigators to be a result of the lowered endocrine function accompanying the menopause. In these 2 patients it occurred at an earlier age. Because the patients presented many of the symptoms attributed to an extreme degree of ariboflavinosis they were treated repeatedly, although unsuccessfully, with yeast, vitamin B complex concentrates and riboflavin. Assuming that these signs are caused by a lack of riboflavin, there may exist a faulty absorption of this vitamin in the intestinal tract or an inability to utilize it.

Hyperpyrexia in Ocular Conditions Due to Syphilis.—Knight and Schachat report 35 cases of syphilitic ocular conditions in which specific antisyphilitic chemotherapy, the usual local ophthalmic therapeutic measures and the Kettering hypertherm were employed. Improvement resulted in 4 of 19 cases of syphilitic atrophy of the optic nerve, clinical progression of symptoms was arrested in 7, and in 6 the disease either continued to progress despite, or had its onset during Kettering hypertherm treatment used in conjunction with other (standard) methods of therapy. Artificially induced fever therapy is valuable in the treatment of syphilitic choroiditis, particularly when the lesions are fresh. It was employed in 6 cases of the acute form and resulted in decided improvement in 4. In the other 2 cases old, quiescent lesions were present. The method is especially valuable when employed in the treatment of acute iritis associated with secondary syphilis and affords a rapid form of treatment of this condition. In 6 cases of this type excellent therapeutic results were obtained. The method is definitely beneficial in the treatment of syphilitic interstitial keratitis and is most helpful in alleviating the severe pain and photophobia which are often associated with this disease.

Archives of Pathology, Chicago

41:223-344 (March) 1946

*Diagnosis of Erythroblastosis (Hemolytic Anemia) in Macerated Fetus. Edith L. Potter.—p. 223.

Hypertension and Necrotizing Arteritis in Rat Following Renal Infarction. Dorothy Loomis.—p. 231.

Analysis of Klippel-Feil Syndrome. C. A. Erskine.—p. 269.

Ovarian Involvement in Hodgkin's Disease. E. L. Heller and W. Palin.—p. 282.

*Plasmodium Falciparum Malaria: Coronary and Myocardial Lesions Observed at Autopsy in 2 Cases of Acute Fulminating P. Falciparum Infection. W. C. Merkel.—p. 290.

Reticulum. W. B. Dublin.—p. 299.

Role of Stasis in Development of Pulmonary Infarcts. C. Moses.—p. 319.

Erythroblastosis in Macerated Fetus.—Potter says that the occurrence of erythroblasts in the pulmonary capillaries is the most important single diagnostic sign to be found in the macerated fetus. The placenta adds valuable corroboratory information. The failure to demonstrate Rh in the erythrocytes of the mother is by itself insufficient evidence on which to base a diagnosis of erythroblastosis. Even in the presence of maceration a definite diagnosis can usually be made, but if any doubt exists a positive diagnosis should be withheld. Unless there is conclusive evidence of erythroblastosis, the mother should not be advised against future child bearing.

Cardiac Lesions in Fatal Falciparum Malaria.—Merkel reports 2 cases. The extremely rapid course of the disease and briefness of hospitalization in both precluded early diagnosis with institution of treatment. The first patient, a soldier aged 33, had already collapsed, although the diagnosis of falciparum malaria had been made on admission. Treatment was of no avail. Because of the advanced age of the second patient, a man aged 70, the malarial nature of the cardiac lesions was not suspected until too late; the recorded blood pressure of 60/40, so usual in cardiac failure, served further to obscure the diagnosis. Death in both cases was typical of cardiac dilatation and collapse. Ameboid forms of Plasmodium falciparum have a tendency to adhere to capillary walls; consequently they may bring about occlusion, plugging or thrombosis. The progress of

events indicates that this parasite may produce symptoms because of these mechanical factors. The coronary system of the heart offers a poor collateral circulation; hence plugging of coronary vessels is apt to create anoxemia of the myocardium, resulting in dilatation and collapse.

Archives of Surgery, Chicago

52:247-386 (March) 1946

*Effects of Artificial Ductus Arteriosus on Experimental Cyanosis and Anoxemia. A. Blalock.—p. 247.
Submucosal Lipomas of Stomach: Review of Literature and Report of Case Associated with Carcinoma. O. B. Scott and A. Brunschwig. —p. 253.
Basis for Sympathectomy for Cancer of Cervix Uteri. A. de Sousa Pereira.—p. 260.
Cutis Graft in Surgery: Review of Results Obtained, with Comments on Indications and Technic and Report of Cases. J. E. Cannaday.—p. 286.
Review of Urologic Surgery. A. J. Scholl, F. Hinman, A. B. Hepler and others.—p. 304.
Progress in Orthopedic Surgery for 1944: XVIII. Infections of Bones and Joints Exclusive of Tuberculosis. L. D. Baker.—p. 327.
Id.: XIX. Fracture Deformities. E. M. Regen, P. Harmon and G. Barber.—p. 336.
Id.: XX. Conditions Involving the Lower Part of Back. R. Beverly Raney.—p. 342.
Id.: XXI. Conditions Involving Shoulder, Neck and Jaw. A. Steindler. —p. 360.
Id.: XXII. Research. A. Steindler.—p. 377.

Effects of Artificial Ductus Arteriosus on Experimental Cyanosis and Anoxemia.—Experimental removal of lobes of one or both lungs in dogs and the anastomosis of the severed proximal ends of the pulmonary artery and vein usually resulted in a high degree of arterial oxygen unsaturation because some venous blood returned to the heart without having passed through pulmonary capillaries. The creation of an artificial ductus arteriosus under these conditions usually resulted in an increase in the oxygen saturation of the arterial blood. This increase was due to the passage of a greater quantity of blood which was not fully oxygenated through the pulmonary capillaries. If the cardiac output remained unaltered, a greater number of red blood corpuscles were exposed to the inspired air in a given time. Although this experimentally produced condition is different from that seen in the tetralogy of Fallot, the results of these studies strengthened the impression that the patient with pulmonary stenosis would be improved if the pulmonary blood flow was increased and led to the development of the operation as now performed on patients with pulmonary stenosis or atresia.

Arizona Medicine, Phoenix

3:67-134 (March) 1946

Cataract Extraction. P. H. Case.—p. 91.
Conjugation of Sulfonamides in Intestinal Tract of Man. F. J. Moore and D. G. Simonsen.—p. 93.
Factors Determining the Hydrolysis of Sulfasuxidine and Sulfathalidine. F. J. Moore and D. G. Simonsen.—p. 94.
Estimation of Sulfasuxidine and Sulfathalidine. F. J. Moore and D. G. Simonsen.—p. 96.
Subacute Bacterial Endocarditis, with Case Report. S. K. Conner.—p. 98.

Canadian Medical Association Journal, Montreal

54:333-428 (April) 1946

Neurogenic Bladder in Spinal Cord Injury. D. Swartz.—p. 333.
Volkmann's Ischemic Contracture. W. T. Clarke.—p. 339.
Functional Uterine Bleeding. M. C. Watson.—p. 342.
Survey of Ophthalmic Status of Cree Indians at Norway House, Manitoba. J. V. V. Nicholls.—p. 344.
Hypertension and Its Management. W. F. Connell.—p. 348.
Health of Workmen: Appreciation of Risks to Which Health of Workmen Is Exposed in Industry in Province of Quebec. F. J. Tourangeau. p. 352.
*Immunization Against Pertussis with Endotoxoid Vaccine. T. C. Brereton.—p. 358.
Maternal and Fetal Anoxia. E. M. Robertson.—p. 360.
Continuous Spinal or Lumbar Anesthesia. R. J. Fraser.—p. 363.
Toward Lower Mortality in Appendicitis. A. L. Murphy and R. J. Murphy.—p. 368.
Diagnosis and Treatment of Ocular Muscle Anomalies. R. E. Smart. —p. 371.

Immunization Against Whooping Cough. — Brereton injected whooping cough endotoxoid vaccine into 436 preschool children between the ages of 4 months and 5 years. Each child received injections of 1, 1.5, 1.5 and 2 cc. at intervals of fourteen days, a total dose of 6 cc., representing 90 billion phase I Hemophilus pertussis organisms and 900 units of whooping cough endotoxoid. The local reactions varied; some children had no reactions, while others showed mild and moderate reactions. The local reactions were due to the preservative (sodium ethylmercurithiosalicylate), which is more irritating than phenol, and to the potency of the injected material. Not one child developed whooping cough in a period of two and a half years. Ordinarily following injections of other whooping cough vaccines one might have expected an incidence of about 40 per cent. The number of injections, the interval between injections and the nature and unitage of the antigens in all probability accounted for the high degree of immunity produced in these children.

Connecticut State Medical Journal, Hartford

10:273-376 (April) 1946

*Management of Peptic Ulcers with High Protein, High Caloric Diet. V. J. Vinci, H. E. Speight, L. O. LaBella and W. E. Buckley.—p. 281.
Potentialities of Group Practice of Medicine. F. Goldmann.—p. 289.
What Farm Bureau Expects from Medicine. J. S. Jones.—p. 294.
What Industry Expects of Medicine. H. Strong.—p. 296.
What Labor Expects from Medicine. N. H. Cruickshank.—p. 300.
Valvular Heart Disease (Rheumatic) in Rejectees: Survey of 100,000 Cardiac Examinations Performed at New Haven Recruiting and Induction Station, New Haven, Connecticut. C. C. Verstandig. —p. 304.
Medical Aspects of Candlewood Lake Murder. J. D. Booth.—p. 306.
Semicentennial of Roentgen's Discovery. R. Spillman.—p. 309.

High Protein and High Caloric Diet in Peptic Ulcer. —The greater part of the protein of the diet used by Vinci and his associates in the treatment of 30 patients with peptic ulcer was obtained from Amigen, which is made from casein by digestion with pork pancreas. The diet consists of 227 Gm. (7½ ounces) of Amigen, 227 Gm. (7½ ounces) of Dextri Maltose, 817 Gm. (27 ounces) of water, 680 Gm. (24 ounces) of milk and 680 Gm. (24 ounces) of 20 per cent cream. This constitutes a diet for one day and is given in 142 Gm. (5 ounce) feedings at hourly intervals from 7 a. m. to 9 p. m. In order to relieve the monotony of the diet, 90 Gm. of strained cooked cereal is given at 12 noon and 6 p. m. One soft boiled egg is given at 8 a. m. and another at 3 p. m. Vitamins are given in adequate doses separately, usually by mouth. One of the commercial preparations of colloidal aluminum hydroxide is used if desired, but since the Amigen is a natural antacid no particular advantage was noted when the antacid was used. No other medication was given. The patient was kept at almost complete rest in bed. This diet without the use of the egg and cereal feedings contains a total caloric value of 3,760. With the cereal and egg feedings the diet contains a total caloric value of 4,078. Twenty-one of the 30 ulcer cases were considered medical problems, and this plan of treatment brought improvement within three weeks. Six of these patients had bleeding. In those with massive hemorrhage, blood transfusions were given but the diet was started a few hours after admission. There was no mortality in this group. Nine of the cases were considered surgical problems. Eight patients had gastric resections and one, because of advanced age, had a gastroenterostomy. All were prepared for operation by the high protein, high caloric diet and its use lessened the tissue edema, made the surgical procedure technically less difficult and appeared to influence favorably the postoperative period. There was no mortality in this group. The authors consider the high protein, high caloric diet an improvement over the conventional treatment of both the uncomplicated and complicated peptic ulcer.

Florida Medical Association Journal, Jacksonville

32:505-564 (April) 1946

Cancer of Uterus. L. J. Netto.—p. 527.
Thyrotropic Exophthalmos. E. M. Isberg.—p. 529.

Indiana State Medical Assn. Journal, Indianapolis

39:159-208 (April) 1946

Carcinoma of the Cervix. J. W. Hofmann.—p. 159.
Metastastic Carcinoma After Forty Years. W. R. Davidson and A. W. Ratcliffe.—p. 165.
Cancer of the Middle Ear: Report of 4 Cases. L. E. Morrison.—p. 167.
Traumatic Neurosis of War. H. Selinski.—p. 170.
Résumé of Medical Activities at German Prisoner of War Camp, Fort Lewis, Washington, August 1944-August 1945. A. N. Jay.—p. 172.

Journal of Allergy, St. Louis

17:53-118 (March) 1946

Physiology and Functional Pathology of Lymphatic System Applied to Allergy of Nose and Paranasal Sinuses. J. M. Robison.—p. 53.
Volumetric Incidence of Atmospheric Allergens: III. Rate of Fall of Pollen Grains in Still Air. O. C. Durham.—p. 70.
Id.: IV. Proposed Standard Method of Gravity Sampling, Counting and Volumetric Interpolation of Results. O. C. Durham.—p. 79.
*Survey of Bronchial Asthma in Soldiers: Bronchoscopic Findings and Incidence of Respiratory Infection. A. Zoss, W. J. Neidlinger and H. S. Read.—p. 87.
Allergy in the Pacific. J. A. Blue.—p. 97.
Ethyl-Nor-Epinephrine by Inhalation for Bronchial Asthma: Comparison with Epinephrine. M. M. Hartman.—p. 106.
Contact Dermatitis Due to Ace Adherent. A. G. Franks.—p. 112.

Bronchial Asthma in Soldiers.—Zoss and his associates report a survey of 250 cases of perennial bronchial asthma in soldiers admitted to an army general hospital. Two hundred and six of the 250 soldiers had been on active duty overseas: European theater, 108; Southwest Pacific, 91; China-India-Burma, 7. Of this evacuated group, 71 developed their asthma for the first time while overseas, 48 in the Southwest Pacific, 21 in the European area and 2 in the China-India-Burma area, indicating that the Southwest Pacific theater may be more conducive to the initiation of the disease. Fifty per cent of the patients had chronic suppurative sinusitis. Bronchoscopy revealed bronchial abnormalities in 89.6 per cent of the series. These were differentiated as (1) chronic suppurative bronchitis, (2) chronic nonsuppurative bronchitis and (3) allergic bronchitis. Chronic suppurative infection of the respiratory tract was found in 73.2 per cent of all patients. This incidence is high.

Journal of Clinical Endocrinology, Springfield, Ill.

6:117-234 (Feb.) 1946

General Adaptation Syndrome and Diseases of Adaptation. H. Selye.—p. 117.

6:235-286 (March) 1946

Proteolytic Activity of Normal and Pathologic Human Thyroid Tissue. E. De Robertis and W. W. Nowinski.—p. 235.
*Adenocarcinoma of Thyroid with Hyperthyroidism and Functional Metastases: I. Studies with Thiouracil and Radio Iodine. L. Leiter, S. M. Seidlin, L. D. Marinelli and E. J. Baumann.—p. 247.
*Mikulicz's Syndrome with Fever as Unusual Complication of Thiouracil Therapy. R. C. Bishop and R. W. Rawson.—p. 262.
Idiopathic Hypoparathyroidism with Mental Deterioration: Effect of Treatment on Intellectual Function. E. J. Mortell.—p. 266.
Excretion of Neutral 17-Ketosteroids in 2 Cases of Male Pseudohermaphroditism. J. C. Herweg, L. V. Ackerman and W. M. Allen.—p. 275.

Adenocarcinoma of Thyroid.—Leiter and his associates say that adenocarcinoma of the thyroid with functioning distant metastases capable of producing clinical hyperthyroidism is extremely rare. They report 2 such cases in which radioactive iodine was used as an indicator of the physiologic activity of the metastases. In 1 case absence of functional thyroid tissue in the neck, shown by the lack of uptake of radioactive iodine, proved that the metastases were responsible for the hyperthyroidism. Thyroxine iodine was demonstrated in metastases in both cases. Thiouracil produced a complete remission in both cases within a few weeks, as judged by the effect on the general condition, the basal metabolic rate, the plasma cholesterol, the body weight and the blood iodine. This was in striking contrast to the aggravating effect of previous iodinization in 1 case and the slight decrease in hyperthyroidism of the other. On withdrawal of thiouracil there was prompt recurrence of hyperthyroidism in both cases. The plasma cholesterol curve was a sensitive indicator of the influence of thiouracil. The urinary excretion of radioactive iodine was doubled during the period of maximum effect of thiouracil. Apparently thiouracil can suppress hormone production in metastases of adenocarcinoma of the thyroid just as readily as it inhibits this process in the hyperplastic thyroid of ordinary toxic diffuse goiter.

Mikulicz's Syndrome After Thiouracil Therapy.—According to Bishop and Rawson, "iodine mumps" has long been known as a rare toxic reaction to iodine. A woman aged 50 developed a generalized swelling of the salivary and lacrimal glands while taking thiouracil. She also had fever and leukocytosis. That the fever, leukocytosis and swelling of the salivary glands represent a toxic reaction to thiouracil seems clearly established by reproduction of the syndrome on readministration of thiouracil. A sialogram of the right parotid made later revealed changes indicating atrophy of that gland.

Journal of Clinical Investigation, Boston

25:153-286 (March) 1946

Failure of Local Fluid Loss to Account for Death in Experimental Shock. C. C. Scott.—p. 153.
Blood Volume in Clinical Shock. R. P. Noble and M. I. Gregersen, with technical assistance of Priscilla M. Porter and Ann Buckman.—p. 158.
Effect of Administration of Essential Amino Acids on Utilization of Dietary Protein in Malnutrition Among War Casualties. K. Emerson Jr. and O. F. Binkley.—p. 184.
*Absorption, Excretion and Destruction of Orally Administered Penicillin. W. McDermott, P. A. Bunn, Maria Benoit and others.—p. 190.
Treatment of Experimental Uremia by Means of Peritoneal Irrigation. A. M. Seligman, H. A. Frank and J. Fine.—p. 211.
Role of Colloid and of Saline in Treatment of Shock. A. W. Winkler, T. S. Danowski and J. R. Elkinton.—p. 220.
Comparison of Effects of High and Low Viscosity Gelatins After Their Intravenous Injection in Man. A. Lowell, H. Colcher, F. E. Kendall and others.—p. 226.
Central Venous Pressure in Relation to Cardiac "Competence," Blood Volume and Exercise. E. M. Landis, E. Brown, M. Fauteux and C. Wise.—p. 237.
Chloride Excretion During Glycosuria in Patients with Diabetes. J. L. Gabrilove.—p. 256.
Estimation of Blood Volume from Change in Blood Specific Gravity Following a Plasma Infusion. R. A. Phillips, A. Yeomans, V. P. Dole and others.—p. 261.
Isolation of Poliomyelitis Virus from Human Extraneural Sources. Dorothy M. Horstmann, J. L. Melnick and H. A. Wenner.—p. 270.

Orally Administered Penicillin.—McDermott and his co-workers conclude, from administering partially purified sodium and calcium salts of pencillin to cats, dogs and human subjects, that absorption of ingested penicillin occurs chiefly from the duodenum. The amount of absorption which occurs from the stomach is not established but is probably small. Inactivation of penicillin as a result of the acidity of the gastric content is seldom great. Absorption of penicillin is rapid. The maximum concentrations are attained in the blood within thirty to sixty minutes of ingestion. The subsequent persistence of penicillin in the blood is a reflection of the height of the maximum concentration originally attained and does not appear to be a result of continued absorption from the alimentary tract. Absorption of ingested penicillin is incomplete. Two thirds or more of an orally administered dose is apparently not absorbed. Once penicillin has passed through the small intestine, only insignificant amounts are absorbed. The penicillin in the intestine which is not absorbed is inactivated by the bacteria in the colon, or, if an excess is present, it is excreted in the feces. The necessity for the use of larger amounts of penicillin by the oral than by the intramuscular route is primarily the result of incomplete absorption and cannot be explained satisfactorily on the basis of destruction by acid or bacterial action.

Journal of Experimental Medicine, New York

83:259-354 (April) 1946

Studies on Complement Fixation Antigens of Influenza Viruses Types A and B. Maria Wiener, W. Henle and Gertrude Henle.—p. 259.
Precipitin Reactions of Highly Purified Influenza Viruses and Related Materials. C. A. Knight.—p. 281.
Colorado Tick Fever and Dengue: Experimental Immunologic and Clinical Comparison. L. Florio, W. McD. Hammon, Angela Laurent and Mabel O. Stewart.—p. 295.
Antibody Formation in Volunteers Following Injection of Pneumococci or Their Type Specific Polysaccharides. M. Heidelberger, C. M. MacLeod, S. J. Kaiser and Betty Robinson.—p. 303.
Mouse Protective Titers of Serums of Volunteers Following Injection of Pneumococci or Their Type Specific Polysaccharides. Annabel W. Walter, Edna L. Schenkein and W. D. Sutliff.—p. 321.
*Neuropathologic Study of Acute Human Poliomyelitis, with Special Reference to Initial Lesion and to Various Potential Portals of Entry. H. K. Faber and Rosalie J. Silverberg.—p. 329.

Neuropathologic Study of Acute Poliomyelitis.—Faber and Silverberg examined the peripheral and central nervous tissue of 8 patients dying of acute poliomyelitis. Based on concurrent lesions in the primary and secondary centers, the frequency of involvement of the various systems and the proba-

bility of their having acted as primary pathways for entering infection was found to be (*a*) very frequent for the trigeminal afferent system (fifth cranial), (*b*) fairly common for the visceral afferent system (ninth and tenth cranial) but less than for the fifth, (*c*) occasional for the gustatory system (seventh, ninth and tenth cranial), (*d*) occasional for the upper levels of the sympathetic system (pharynx, bronchial tree, upper esophagus), (*e*) occasional or doubtful for the lower sympathetic system (intestine), and (*f*) uninvolved for the vagal efferent (parasympathetic) system (tenth cranial) and olfactory (first cranial) system. The evidence of penetration through the upper alimentary and respiratory tracts was more conspicuous and consistent than through the lower alimentary tract. The pharynx appears to be an especially favorable site for the primary penetration of virus into the body.

Journal of Immunology, Baltimore

52:101-188 (Feb.) 1946

Enhancement of Circulating Antibody Concentration by Adrenal Cortical Hormones. Jeanne H. Chase, A. White and T. F. Dougherty.—p. 101.
Comparison of Rabbit and Mouse Antiserums to Shigella Paradysenteriae. Beatrice W. Doak, S. P. Halbert, J. Smolens and S. Mudd.—p. 113.
Studies on Bacterial Viruses: I. Effect of Certain Compounds on Lysis of Escherichia Coli by Bacteriophage. R. J. Fitzgerald and Dorothea Babbitt.—p. 121.
Id.: II. Observations on Mode of Action of Acridines in Inhibiting Lysis of Virus Infected Bacteria. R. J. Fitzgerald and Miriam E. Lee.—p. 127.
Changes of Serum Phosphatase Level After Infection of Cows with Brucella Abortus. W. Braun.—p. 137.
*Experimental Exposure of Human Subjects to Viruses of Influenza. W. Henle, Gertrude Henle, J. Stokes Jr. and Elizabeth P. Maris. —p. 145.
Shigella Paradysenteriae (Flexner) Type II. VII. A. J. Weil and K. Farsetta.—p. 167.
Propagation of Japanese B Encephalitis Virus in Developing Chick Embryo. H. Koprowski and H. R. Cox.—p. 171.

52:189-292 (March) 1946

Weil-Felix and Typhus Complement Fixation Tests in Relapsing Fever, with Special Reference to B. Proteus OX-K Agglutination. C. J. D. Zarafonetis, H. S. Ingraham and J. F. Berry.—p. 189.
Effects of Immunization with Histamine Azoprotein on Histamine Intoxication and Passive Anaphylaxis in the Guinea Pig. G. S. Coffin and E. A. Kabat.—p. 201.
Specific Polysaccharides of Types A, B, C, D and F Hemophilus Influenzae. Catherine F. C. MacPherson, M. Heidelberger, Hattie E. Alexander and Grace Leidy.—p. 207.
Phase Variation of Shigella Paradysenteriae (Flexner) Type IV. A. J. Weil, K. Farsetta and V. Knaub.—p. 221.
Duration of Antibody Formation After Injection of Killed Typhoid Bacilli in Water-in-Oil Emulsion. J. Freund and Mary V. Bonanto. —p. 231.
Antigenic Relationships of West Nile, Japanese B Encephalitis and St. Louis Encephalitis Viruses. E. H. Lennette and H. Koprowski. —p. 235.
Quantitative Studies on Neutralization of Pathogenic Agents in Tissues by Circulating Antibodies: VI. Ai Values and the Avidities of Tetanal Toxins for Nerve Tissue and Antitoxin. U. Friedemann, A. Hollander and F. B. Traub.—p. 247.
Immunochemistry of Allergens: VIII. Precipitin Formation and Passive Transfer Reactions with Allergenic Proteins from Cottonseed and Castor Beans. E. J. Coulson, J. R. Spies, E. F. Jansen and H. Stevens.—p. 259.
Relationship of Protein Reserves to Antibody Production: II. Influence of Protein Repletion on Production of Antibody in Hypoproteinemic Adult White Rats. R. W. Wissler, R. L. Woolridge, C. H. Steffee Jr. and P. R. Cannon.—p. 267.
Action of Penicillin on Staphylococci. J. E. Blair, Miriam Carr and J. Buchman.—p. 281.

Experimental Influenza in Man.—The Henles and their associates, in determining the effects of exposure of more than 200 human subjects to active viruses of influenza, used the PR-8, F-12 and F-99 strains of influenza A virus and one strain of influenza B virus (Lee). All four strains caused febrile reactions on inhalation of atomized allantoic fluid cultures but rarely on intranasal instillation. A febrile response was obtained in susceptible subjects with regularity only when undiluted infected allantoic fluids were atomized; on tenfold or hundredfold dilution the incidence of fever decreased greatly. The incubation period was shorter with the PR-8 and Lee strains (less than twenty-four hours) and more extended (thirty to forty-eight hours) with the F-99 virus. All four strains caused similar clinical manifestations, except that when the F-99 strain was employed leukopenia and relative lymphocytosis were frequently severe. Following inhalation, virus was reisolated from over 50 per cent of the febrile subjects and from about 15 per cent of the afebrile subjects exposed to the F-99 and F-12 strains, but from only one subject in the Lee series and from none in the PR-8 series. After intranasal instillation the Lee and F-12 viruses were recovered from most of the subjects but not the F-99 strain. There was no correlation between the preinhalation titer of antibodies and the febrile response in the PR-8 and Lee series; with the F-99 strain an inverse relationship was noted in two experiments. After exposure most subjects responded with the production of homologous antibodies, but some febrile patients did not so respond. The lack of a serologic response in febrile cases was not limited to subjects with high titers of antibodies. Calculation of the geometric mean antibody response showed that inhalation or intranasal instillation of active or of concentrated inactivated virus as a means of immunization does not offer an advantage over subcutaneous vaccination. Irradiated allantoic fluid cultures caused slight or no rise in antibodies on inhalation. The suggestion is made that the effects of exposure of human subjects to influenzal viruses may be the composite result of three factors: infection, with propagation of the virus, toxic manifestations, and accelerated reactions in partially immune subjects.

Journal of Lab. and Clinical Medicine, St. Louis

31:381-498 (April) 1946

Observations on Capillary and Venous Blood in Traumatic Shock. H. Gershberg.—p. 381.
Studies in Complement Fixation: II. Preservation of Sheep's Blood in Citrate Dextrose Mixtures (Modified Alsever's Solution) for Use in Complement Fixation Reaction. S. C. Bukantz, C. R. Rein and J. F. Kent.—p. 394.
Homologous and Heterologous Strains of Plasmodium Vivax: Cross Inoculation Study of Malaria Strain Immunity. L. I. Kaplan, H. S. Read and F. T. Becker.—p. 400.
*Bacteriologic Studies of Sputum in Patients with Pneumococcal Pneumonia Treated with Penicillin. E. M. Ory, W. Harris, M. Meads and others.—p. 409.
Production of Anemia in Pig Which Responded to Purified Liver Extract. G. E. Cartwright, M. M. Wintrobe and S. Humphreys.—p. 423.
Relation of Plasma Salicylate Level to Degree of Hypoprothrombinemia. F. W. Clausen and B. V. Jager.—p. 428.
Critical Analysis of Value of Addition of A and B Group Specific Substances to Group O Blood for Use as Universal Donor Blood. L. H. Tisdall, D. M. Garland and A. S. Wiener.—p. 437.
*Urea as Adjunct to Sulfonamide Therapy: Report of Its Successful Use in Case of Subacute Bacterial Endocarditis. H. Vesell, Irma H. Gross and R. M. Susman.—p. 444.

Bacteriologic Studies in Pneumococcic Pneumonia Treated with Penicillin.—Ory and his associates studied sputum and throat cultures and stained smears of sputum before, during and after treatment with penicillin of 26 patients with pneumococcic pneumonia. The persistence of pneumococci in the sputum did not appear to be definitely related to bacteremia, complications, chronic respiratory infections, the numbers of organisms present before treatment, the development of penicillin resistance or the failure to develop antibodies as judged by the phagocytosis of pneumococci in stained smears. In 1 patient a staphylococcic pneumonia developed as a complication of the pneumococcic lobar pneumonia. The staphylococcus first appeared in the culture of the sputum obtained twelve hours after penicillin was started and then became predominant in subsequent cultures. It was quite resistant to penicillin, and improvement occurred only after intensive sulfonamide therapy. Following penicillin therapy the flora of the sputum changed in most instances to one in which the predominant organisms were gram negative bacilli having the morphology and colony characteristics of influenza bacilli.

Urea as Adjunct to Sulfonamides in Bacterial Endocarditis.—Vesell and his associates report that a girl aged 18, who had subacute bacterial endocarditis, recovered after treatment with sulfadiazine and urea. Another patient with subacute bacterial endocarditis received similar treatment with infusions of sodium sulfadiazine and urea but died. While the administration of penicillin is the preferred treatment in cases of subacute bacterial endocarditis due to the alpha hemolytic streptococcus, combined sulfonamide and urea therapy may be desirable for patients resistant to treatment with penicillin.

Journal-Lancet, Minneapolis

66:95-130 (April) 1946

Tuberculosis and War. K. Emerson.—p. 95.
Relationship of Tuberculosis and Silicosis. O. A. Sander.—p. 96.
Histoplasmin Skin Sensitivity and Pulmonary Calcifications: Review. H. L. Mantz.—p. 100.
Tuberculosis Control Depends on Practicing Physician. L. L. Collins. —p. 103.
Facts and Inferences of Minnesota Sanatorium Admittances. E. J. Simons.—p. 105.
Hazard of Tuberculosis During Medical Training: Abridged Report of Case Finding and Follow-Up Regimen Among Women Medical Students, with Effective Control Program Against Tuberculosis. Sarah I. Morris.—p. 109.
The Outpatient Chest Clinic. J. F. Briggs and E. K. Geer.—p. 114.
Who Should Have Tuberculin Test? J. B. Novak.—p. 116.
Report of One Year Survey of Diagnostic Tuberculosis Service in General Hospital. W. E. Peterson.—p. 118.

Journal of Pediatrics, St. Louis

28:401-514 (April) 1946

*Isolation of St. Louis Encephalitis Virus from Peripheral Blood of Human Subject. R. J. Blattner and Florence M. Heys.—p. 401.
Further Observations of Epidemic Diarrhea of Newborn: I. Observation of Biphasic Type of Clinical Course. II. Therapeutic Measures Including Prophylactic and Therapeutic Use of Gamma Globulin. R. H. High, Nina A. Anderson and W. E. Nelson.—p. 407.
Study of Premature Infants Observed in a Private Hospital Before and After Establishment of Premature Nursery. A. Bloxsom.—p. 418.
Salmonella Choleraesuis (Variety Kunzendorf) Bacteremia Complicating Streptococcal Sore Throat. E. Neter and Ruth F. Krauss.—p. 422.
Preliminary Observations on Some Children with Rheumatic Heart Disease Transported to Subtropical Climate. J. J. Robinson and J. H. Currens.—p. 426.
*Rat Bite Fever. C. G. Watkins.—p. 429.
Preparation and Use of Concentrated Red Blood Cell Transfusions in Infancy. P. G. Danis, J. K. Eto and J. S. Sennott.—p. 449.
Evaluation of Distinction in Clinical Course and Treatment of Erythroblastosis and Icterus Gravis. P. G. Danis.—p. 453.
*Use of Rh-Positive Blood Cells in Treatment of Erythroblastosis Fetalis. P. G. Danis, J. K. Eto and J. S. Sennott.—p. 457.
Appraisal of Treatment of Hemophilus Influenzae Type B Meningitis with Specific Rabbit Serum and Sulfonamides: Based on Observation of 60 Cases. A. M. Edmonds and E. Neter.—p. 462.
Auricular Fibrillation in Infancy: Report of Case with Fleeting Paroxysms. J. Edeiken and S. J. Rugel.—p. 471.
Extreme Paroxysmal Supraventricular Tachycardia: Case Report. N. Bloom and E. L. Kendig Jr.—p. 474.
Coronary Thrombosis: Report of Case in Infant 11 Months of Age. E. P. Scott and A. J. Miller.—p. 478.
Pneumococcic Stomatitis. C. J. Ochs.—p. 481.
Right Sided Transient Paralysis of Diaphragm in Newborn Infant: Case Report. J. V. Greenebaum and F. G. Harper.—p. 483.
Leptomeningeal Cyst Associated with Hemiplegia and Skull Defect of Traumatic Origin. M. Cooperstock.—p. 488.
Bismuth Nephrosis with Anuria in Infant: Report of Case. D. P. Boyette.—p. 493.
Vertebral Hemangioma in Children. I. I. Kaplan.—p. 498.

St. Louis Encephalitis.—Blattner and Heys isolated a filtrable virus from the blood of a boy aged 8 years whose clinical manifestations were suggestive of a virus infection with minimal central nervous system involvement. The virus persisted in the peripheral blood approximately four days after onset of clinical symptoms. Using the newly isolated strain of virus, parallel serum-virus neutralization tests were performed with blood serums obtained from the patient during the clinical course and with serums of rabbits immunized against a known St. Louis encephalitis strain of virus (Hubbard). Controls consisted of mixtures with broth alone and with normal human serum. The results of these tests showed that the infectious agent isolated is neutralized by the serum of a rabbit immunized to the known strain (Hubbard) of the St. Louis encephalitis virus. During the clinical course the patient developed increasing antibody titer to the newly isolated virus and to known St. Louis encephalitis virus (Hubbard). Two criteria for the diagnosis of a virus disease have been satisfied, namely isolation of an infectious agent from the patient and development during the course of clinical illness of type specific humoral antibodies.

Rat Bite Fever.—Watkins reports 16 cases of rat bite fever treated in the St. Louis City Hospital during the period from 1936 to 1944. Four of the 16 cases occurred in children aged less than 1 year, 3 in children between 1½ and 4 years, 5 later in childhood and 3 in persons aged 18, 29 and 48 respectively. One of the cases was fatal. The causative agent was demonstrated in 6 cases, 5 being due to Spirillum minus and 1 being due to Streptobacillus moniliformis. Spirillum minus was demonstrated by inoculation of the patient's blood into mice and microscopic examination of the peripheral blood of mice at daily intervals. In 1 of the cases this organism was seen by direct dark field examination of the lymph of the chancre-like lesion at least nine days prior to the presence of the microorganism in the peripheral blood of mice inoculated with the patient's blood and lymph from the lesion.

Treatment of Erythroblastosis Fetalis.—Danis and his associates report 5 cases of erythroblastosis fetalis in newborn babies. Jaundice appeared within twenty-four hours after birth and persisted for eight to eleven days. In all these cases the mother's blood was Rh negative and the baby's blood was Rh positive. Rh positive concentrated cell transfusions were administered in all the cases. No further transfusions were administered when a blood count of over 4,000,000 and a hemoglobin of 85 per cent were maintained. There were no transfusion reactions, and the follow-up did not reveal anemia. The concentration of the red blood cells reduces the frequency and the volume of transfusions necessary. Concentration can be obtained by siphoning off the plasma down to a centimeter of the cell level in refrigerated blood. Glucose is suggested as an adjunct to treatment, since all babies with erythroblastosis fetalis have either primary or secondary liver dysfunction. Choline chloride is particularly valuable in preventing fatty degeneration and should be used constantly throughout the course of the disease.

Journal of Urology, Baltimore

55:309-440 (April) 1946

Experiences in Management of Congenital Anomaly of Kidney in Army. J. H. Harrison and T. W. Botsford.—p. 309.
Sclerosing Injection of Polycystic Kidney Following Surgical Exposure. W. W. Young.—p. 323.
Osteonephropathy: Report of 2 Cases. B. Huges and G. J. Gislason. —p. 330.
Acute Toxic Nephrosis Due to Poisoning by Carbon Tetrachloride: Case Report. W. F. Melick.—p. 342.
Hemangioma of Kidney. Report of Additional Case. H. N. Dorman and H. A. Fowler.—p. 348.
Migration of Foreign Bodies, with Report of Case of Migration of Shell Fragment into Bladder. E. Bors. C. F. Bowies.—p. 358.
Traumatic Rupture of Urinary Bladder in Infant 3½ Months Old with Recovery. R. E. Brooks.—p. 363.
Infiltrating Carcinoma of Bladder: Relation of Depth of Penetration of Bladder Wall to Incidence of Local Extension and Metastases. H. J. Jewett and G. H. Strong.—p. 366.
Tumor of Testicle: Analysis of 100 Cases: Preliminary Report. E. C. Lowry, D. E. Beard, L. W. Hewit and J. L. Barner.—p. 373.
Metabolism of Prostate: Transamination and Citric Acid. E. S. Guzman Barron and C. Huggins.—p. 385.
Report of 2 Cases of Double Urethra in Male. M. K. O'Heeron and F. A. Webster.—p. 391.
Foreign Bodies in Urethra: Six-Penny Nails Present for Twelve Years. A. A. Stabler.—p. 397.
Anomalies of Urachus: Persistent Fetal Bladder. H. E. Simon and N. A. Brandeberry.—p. 401.
Observations on Urinary Dysfunction After Excision of Rectum. V. F. Marshall, R. S. Pollack and C. Miller.—p. 409.
Treatment of Bacillus Proteus Infections with NU-445. S. J. Sarnoff, M. A. Freedman and A. A. Hyman.—p. 417.
Aerobic Actinomyces in Urine: Preliminary Report. L. E. McCrea and E. H. Spaulding.—p. 428.
Penicillin Treatment of Urinary Infections Caused by Pyogenic Cocci: Report of 101 Cases. M. Exley.—p. 435.

Medical Annals of District of Columbia, Washington

15:99-150 (March) 1946

Advances in War Medicine and Surgery as Demonstrated in European Theater of Operations. P. R. Hawley.—p. 99.
Anesthesia Experiences in a Marine Evacuation Hospital on Okinawa. C. S. Coakley.—p. 110.
Occupational Dermatitis in Aircraft Workers. M. M. Robinson. —p. 116.
Preventive Medicine in Industry. R. L. Wells.—p. 120.

15:151-198 (April) 1946

Appraisal of State Controlled Medicine. F. H. Lahey.—p. 151.
Myocardial Infarction in Negroes. B. A. Fitzgerald and W. M. Yater. —p. 154.
Children in Wartime. L. M. Dub.—p. 160.
Gastroscopy in Differential Diagnosis of Gastric Ulcer. F. A. J. Geier. —p. 163.

Michigan State Medical Society Journal, Lansing

45:415-550 (April) 1946

Aims and Purposes of Conference of Presidents and Other Officers of State Medical Associations. A. S. Brunk.—p. 479.
Headaches from Otologist's Point of View. C. C. Cody.—p. 482.
Ocular Causes of Headache. E. L. Cooper.—p. 485.
Hypertension: Remarks Concerning Its Cause and Treatment. P. S. Barker.—p. 489.
Prognosis of Renal Tuberculosis Treated by Nephrectomy: Outlook of Patient Who Is Considered Unsuitable for Operative Treatment. R. M. Nesbit, W. A. Keitzer and J. M. Lynn.—p. 494.
Dystrophia Myotonica: Report of 2 Cases, with Associated Hyperostosis Frontalis Interna in 1. I. Donald Fagin.—p. 500.
Newer Uses of Roentgen Therapy. H. G. Sichler.—p. 504.

New England Journal of Medicine, Boston

234:393-426 (March 21) 1946

*Repair of Cranial Defects, with Special Reference to Use of Cancellous Bone. J. T. B. Carmody.—p. 393.
Lack of Specific Urethral Lesion in Exertional Urinary Incontinence. S. R. Muellner.—p. 400.
Pyogenic Liver Abscess: Review of Literature and Report of Case Successfully Treated by Operation and Penicillin. J. E. Flynn.—p. 403.
Abdominal Surgery. A. W. Allen.—p. 408.
Symmetrical Necrosis of Renal Cortex.—p. 416.
Idiopathic Acute Myocarditis (? Influenzal Myocarditis).—p. 420.

234:427-458 (March 28) 1946

Psychosomatic Backache. M. Sargent.—p. 427.
Use of Phthalylsulfathiazole (Sulfathalidine) in Colonic Surgery. R. Thomson.—p. 431.
Chronic Disability in Mild Cases of Trench Foot. F. K. Paddock.—p. 433.
Hemorrhage from Gallbladder. P. B. Hudson and P. P. Johnson.—p. 438.
Sensitivity to Tincture of Merthiolate. L. Lipson.—p. 440.
Diabetes Mellitus. E. P. Joslin.—p. 442.
Ruptured Syphilitic Aneurysm of Aorta. Hematoma of Mediastinum.—p. 449.
Hydronephrosis: Left Kidney.—p. 45 .

Repair of Cranial Defects.—Carmody presents 2 cases to illustrate some of the inadequacies of tantalum. His chief aim is, however, to stress the point that the use of bone in cranioplasty is not obsolete and that in certain cases this material should in fact be the one of choice. In both of the reported cases tantalum plates that had been introduced for cranial repair had to be removed and were replaced by a bone graft of cancellous chips from the ilium.

New York State Journal of Medicine, New York

46:561-672 (March 15) 1946

Community Aspects of Venereal Disease Control in Harlem. G. A. Spencer and R. F. Gordon.—p. 611.
Proctologic Problems in a Military Hospital. S. Z. Vogel.—p. 614.
Rehabilitation of Tuberculous. H. St. John Williams.—p. 616.
*Observations of Penicillin Therapy in Gonorrhea. J. Frumkin and R. J. Ruark.—p. 619.
Palindromic Rheumatism in Children. M. I. Salomon.—p. 622.
Treatment of Subacute Bacterial Endocarditis with Penicillin: Report of 10 Cases. L. H. Sigler, T. J. Longo and H. H. Feldman.—p. 624.
Elicitation of Big Toe Response (Babinski Sign) in Ticklish Subjects. M. Brody.—p. 630.
Coexistence of Gout and Metabolic Craniopathy. W. Feiring.—p. 631.
Multiple Hemorrhagic Telangiectasis (Rendu-Osler-Weber Disease): Report of 4 Cases. S. Gitlow and H. L. Frosch.—p. 635.
Recovery of Patient with Agranulocytosis by Administration of Blood from Febrile Donor. W. H. Eller.—p. 641.

Penicillin Therapy in Gonorrhea.—Frumkin and Ruark treated 1,349 unselected cases of acute gonorrhea with penicillin at a U. S. Army general dispensary in Paris, France. All the patients were ambulatory. In the first group routine treatment of 1,086 patients consisted of 20,000 units of penicillin administered intramuscularly every two hours until a total of 100,000 units was given. Four hundred and eighteen patients completed three follow-up examinations, and an additional 95 completed two follow-up examinations. In the total of 513 cases there were 87 failures (16 per cent). Analysis of these failures revealed that the relapse occurred within five days in 58 cases (66 per cent); negative microscopic urines were found after three days in 32 cases (37 per cent of the 87 failures). In a second group 210 patients were treated with penicillin combined with sulfathiazole; 153 patients returned to complete all three follow-up visits. Treatment was effective in 140 of these patients (92 per cent); there were 13 failures (8 per cent). In a third group 10 patients were treated with 150,000 units of penicillin in a gelatin capsule administered by mouth in one dose; there were 8 immediate failures within three days. A fourth group of 18 patients was treated with 150,000 units of penicillin in beeswax and peanut oil injected intramuscularly in one dose. Sixteen returned for complete follow-up. There were 4 failures. In the last group of 25 patients 200,000 units of penicillin in beeswax and peanut oil was administered intramuscularly in one dose. There were 17 complete follow-up cases and 5 immediate failures. There were no severe toxic reactions to penicillin noted. In 5 cases an acute flare-up of the discharge accompanied by redness and swelling of the penis was observed during treatment. There was no dramatic response to penicillin in cases of epididymitis and periurethral abscess. Some degree of prostatic infection was found in 24 (32 per cent) of 74 unselected and apparently cured cases of gonorrhea.

North Carolina Medical Journal, Winston-Salem

7:93-140 (March) 1946

Treatment of Carcinoma of the Larynx. H. F. Hare and W. B. Hoover.—p. 93.
Treatment of the Cardiac Arrhythmias. R. A. Broome Jr. and E. S. Orgain.—p. 99.
Recent Studies on Blood Coagulation and Their Clinical Applications. J. H. Ferguson.—p. 105.
Obstetric Technic in the Home. J. D. Dowling Jr.—p. 108.

7:141-196 (April) 1946

How North Carolina Can Reduce Maternal Mortality. F. R. Lock.—p. 141.
Twinning and Twins. W. C. George.—p. 143.
*Beta Dimethylaminoethyl Benzhydryl Ether Hydrochloride (Benadryl) in Treatment of Urticaria and Related Dermatoses. S. W. Barefoot, Kathleen A. Riley and Beatrice H. Kuhn.—p. 150.
Chronic Malaria. A. Papineau.—p. 153.
Diagnosis of Early Vitamin Deficiency Diseases. D. Cayer.—p. 160.

Benadryl in Urticaria and Related Dermatoses.—Barefoot and his co-workers used benadryl (beta dimethylaminoethyl benzhydryl ether hydrochloride) in the treatment of 24 patients with pruritic dermatoses, including 19 with urticaria. All patients received 50 mg. of benadryl orally four times a day. Results were excellent in 10 patients with urticaria, good in 6 and poor in 3. Benadryl has a palliative effect on urticaria even when epinephrine and other treatments have not favorably influenced the condition. In most cases the pruritus subsides soon after the institution of benadryl therapy, although the urticarial wheals may persist. Benadryl seems to have influenced favorably a case of toxic erythema and a case of severe dermatitis venenata associated with angioneurotic edema. It did not seem helpful to a patient with a disseminated dermatophytide or to another with pruritus associated with jaundice. Drowsiness, malaise, photophobia, impairment of ocular accommodation and muscle and joint aches were encountered among patients receiving benadryl. Since drowsiness is severe in some instances, it may be advisable to have the patient under adequate supervision when the first dose of the drug is given.

Pennsylvania Medical Journal, Harrisburg

49:705-816 (April) 1946

Penetrating Wounds of Abdomen. L. F. Bush and P. H. Thorough.—p. 721.
How to Prevent Death from Breast Cancer. E. P. Pendergrass.—p. 726.
Unusual Types of Appendicitis. W. W. Babcock.—p. 728.
Injuries of Elbow in Children. G. W. Chamberlain.—p. 733.
Orthopedic Interest in Fracture. V. Mooney.—p. 736.
Symptomatology of Uterine Retrodisplacements. C. C. Briscoe.—p. 739.
Posterior Sclerotomy and Lens Extraction in Acute Glaucoma Secondary to Senile Cataract. P. J. Kennedy.—p. 742.
*Estrogenic Therapy in Diabetes. P. Gerber.—p. 744.

Estrogenic Therapy in Diabetes.—Ten women with diabetes mellitus were treated with estrogens and/or diethylstilbestrol for three months, with an average reduction of 31.6 per cent in their total daily insulin requirement and a general improvement in their sense of well-being. Gerber thinks that estrogenic therapy is advisable in menopausal diabetic women and in those of any age group who demonstrate signs of hyperpituitarism or hypo-ovarianism or both.

Psychosomatic Medicine, Baltimore

8:75-160 (March-April) 1946

Body Disproportions and Dominant Personality Traits. C. C. Seltzer.—p. 75.
Study of Personality of Normal Young Men Maintained on Restricted Intakes of Vitamins of B Complex. J. Brozek, H. Guetzkow and A. Keys.—p. 98.
Individual Psychotherapy. F. Alexander.—p. 110.
Narcotherapy. P. Hoch.—p. 116.
Hypnotherapy. Margaret Brenman and M. M. Gill.—p. 117.
Group Psychotherapy. R. G. Heath.—p. 118.
Group Psychotherapy with Veterans. N. W. Ackerman.—p. 118.
The War Blinded: Their Emotional, Social and Occupational Situation. E. Wittkower and R. C. Davenport.—p. 121.
Treatment of Warts by Suggestion. H. Vollmer.—p. 138.

Public Health Reports, Washington, D. C.

61:473-528 (April 5) 1946

*Geographic Differences in Sensitivity to Histoplasmin Among Student Nurses. C. E. Palmer.—p. 475.
Tuberculosis Mortality in the United States and in Each State: 1944. J. Yerushalmy and I. M. Moriyama.—p. 487.

Geographic Differences in Sensitivity to Histoplasmin.—Palmer analyzed, according to place of residence, the histoplasmin reactions of 8,141 student nurses in connection with a study of early tuberculosis. Geography appears to be a significant determining factor in the prevalence of positive reactors; an area of high prevalence of positive histoplasmin reactors exists in the Eastern Central part of the United States, and the frequency of positive reactors, in general, decreases with increasing distance from this area.

61:529-556 (April 12) 1946

Method of Conducting 50 per Cent Hemolysis End Point Complement Fixation Test for Parasitic Diseases. J. Bozicevich, Helen M. Hoyem and V. M. Walston.—p. 529.
*Streptomycin in Experimental Plague. J. W. Hornibrook.—p. 535.
Sequestration of Calcium and Magnesium in Presence of Alkaline Detergents. E. H. Mann and C. C. Ruchhoft.—p. 539.
Injury Resulting from Use of Aerosol Bomb. D. F. Metzler.—p. 546.

Streptomycin in Experimental Plague.—Hornibrook found that streptomycin is thermostable and inhibits the growth of Pasteurella pestis in broth. Mice weighing about 18 Gm. were inoculated subcutaneously in the groin with 0.2 cc. of a suspension of Pasteurella pestis in 1 per cent peptone water. The inoculum contained up to 6,000 organisms. Streptomycin was inoculated intraperitoneally in a 1 per cent solution. Controls were given the same volume of isotonic solution of sodium chloride. Sulfadiazine was also used for comparison. When 2 mg. (400 units) of streptomycin was given before and 2 mg. twenty-four hours after challenge, 10 mice survived for fourteen days a dose of plague organisms which killed 70 per cent of the controls. When 2 mg. per day was started two days after inoculation and continued for six days, 9 of 10 mice survived for fourteen days. When sodium sulfadiazine was used under the same circumstances, 4 of 11 survived; 8 of 9 controls died.

Radiology, Syracuse, N. Y.

46:319-440 (April) 1946

Roentgen Changes Associated with Pancreatic Insufficiency in Early Life. E. B. D. Neuhauser.—p. 319.
Roentgen Diagnosis of Pancreatic Cyst. J. F. Holt.—p. 329.
Congenital Duodenal Obstruction: Report of 6 Cases and Review of Literature. F. G. Kautz, J. R. Lisa and E. Kraft.—p. 334.
Diverticulosis of Jejunum and Ileum. M. Ritvo and P. J. Votta.—p. 343.
Pellegrine-Stieda Disease. D. A. Russell and C. D. Smith.—p. 351.
Spondylolisthesis: Further Remarks, with Emphasis on Radiologic Aspects. A. C. Galluccio.—p. 356.
Energy Absorption in Trunk in Radium Treatment of Breast Cancer by Interstitial and Surface Applicator Methods. C. W. Wilson.—p. 364.
Henoch's Purpura: Small Intestinal Changes: Case Report. W. H. Whitmore and G. M. Peterson.—p. 373.
Dysgerminoma of Ovary with Widespread Metastases. E. P. Pendergrass and J. Selman.—p. 377.
Accessory Urethral Channel: Case Report. E. E. Fong.—p. 380.
New Method of Making Radon Ointment. L. Cardenas and J. L. Weatherwax.—p. 381.
Protection Measurements of Lead Shielded Radium. C. B. Braestrup.—p. 385.
Pelvicephalometry. T. A. Kendig.—p. 391.
Studies in Vitro on Cellular Physiology: Effect of X-Rays on Survival of Cells. R. Schrek.—p. 395.

Rhode Island Medical Journal, Providence

29:177-256 (March) 1946

Plan for Voluntary Surgical Insurance Program for Rhode Island. H. C. Pitts.—p. 191.
Injection Treatment of Hemorrhoids. T. A. Krolicki.—p. 194.
Medical Care for Veterans. P. R. Hawley.—p. 197.
Opinion Poll of Physicians Regarding Neuropsychiatric Conditions Among World War II Veterans in Rhode Island. Hildegard Durfee.—p. 203.
R. I. Blue Cross Leads the Way. C. R. Rorem.—p. 209.

29:257-332 (April) 1946

Brachial Plexus Block: 100 Consecutive Cases. E. Damarjian.—p. 271.
Outpatient Electric Convulsive Therapy. L. A. Senseman.—p. 273.
R. I. Hospital Refresher Courses for Veteran Physicians. S. S. Freedman.—p 278.

Virginia Medical Monthly, Richmond

73:149-202 (April) 1946

Venereal Disease as Soldiers Return. M. Romaine and W. E. Chapin.—p. 151.
*Biologic False Positive Serologic Tests for Syphilis: Study of 100 Cases. S. G. Page Jr. and L. L. Heimoff.—p. 153.
Minor Epidemic of Salmonella Infection. K. Nelson and G. E. Snider.—p. 160.
Early Clinical Recognition of Coronary Artery Disease, with 10 Case Reports. S. Scherlis.—p. 168.
Recent Advances in Diagnosis and Treatment of Diseases of External Eye. D. Guerry.—p. 173.
*Poliomyelitis—Results of Treatment. C. J. Frankel and Ruth L. Cralle.—p. 179.
Treatment of Civilian Casualties in Manila. H. H. Trout Jr.—p. 181.

Biologic False Positive Tests for Syphilis.—Page and Heimoff report 100 false positive tests for syphilis. The conditions responsible may be divided into two major groups: those caused by diseases (respiratory, infectious and other febrile diseases) and those caused by immunizations (tetanus toxoid, smallpox and combination of tetanus toxoid and smallpox vaccinations). If a false positive serologic test is suspected, not only must a careful history be taken as regards marital history and recent sexual exposures, but attention must be given to recent febrile diseases. The blood must be carefully examined for malaria and for infectious mononucleosis. The serologic test must be repeated at intervals and, if possible, a quantitative flocculation test should be made, as the titer is of diagnostic importance. If these cases are followed with serial complement fixation and flocculation tests it will be found that in the biologic false positive tests the titer will be fairly low, usually not exceeding 60 to 100 units, and will show a tendency on repetition to become lower in titer pointing toward a negative result.

Treatment of Poliomyelitis.—Frankel and Cralle say that during the 1944 epidemic 58 cases of infantile paralysis were treated at the University of Virginia Hospital. At that time they concluded that the Kenny treatment, as a whole, was unnecessary, was expensive and required larger numbers of trained personnel than were then available. The orthopedic service had adhered rigidly to the Kenny method in 1943. All except 12 cases were brought to the hospital after a three weeks isolation period in selected centers throughout the state. Muscle check examinations were done soon after the patients entered the hospital. These were repeated monthly. Muscle spasm was seen in all cases. The patients were placed on beds with fracture and foot boards. Muscle spasm was treated with application of hot wet packs given four or five times a day and discontinued when pain on stretching disappeared. Neostigmine methylsulfate and atropine were given intramuscularly and neostigmine bromide orally. The authors conclude that hot packs and neostigmine are of value in the early treatment of poliomyelitis. Neostigmine is more effective when given intramuscularly. Incoordination is also lessened by the administration of neostigmine. Early locomotion with or without braces gives the patient a better outlook and speeds his rehabilitation. The end results so far as paralysis was concerned were no better than with previous methods of treatment but the patients did show less atrophy and less peripheral circulatory difficulty. Early physical therapy is of distinct value and should be instituted as soon as pain subsides.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Journal of Ophthalmology, London

30:193-252 (April) 1946

Epidemic Keratoconjunctivitis Associated with Skin Lesions. W. J. O'Donovan and I. C. Michaelson.—p. 193.
Use of Crystalline Penicillin in Corneal and Intraocular Infection. F. Juler and G. T. Johnson.—p. 204.
Operation for Posterior Route Extraction of Intraocular Foreign Bodies. L. B. Somerville-Large.—p. 208.
Treatment of Trachoma. E. O. Marks.—p. 213.
Schistosomiasis of Conjunctiva. G. Badir.—p. 215.
Case of Secondary Oblique Facial Cleft. A. Mellick.—p. 221.
Relation of Corneal Vascularisation and Conjunctival Transparency to General Disease. P. A. Gardiner.—p. 225.
Ocular Decompensation. E. M. G. Dalton.—p. 232.
Notes on Oncocerciasis in Guatemala. R. Pacheco-Luna.—p. 234.

British Medical Journal, London

1:515-560 (April 6) 1946

Surgical Aspects of Congenital Heart Disease. A. R. Gilchrist.—p. 515.
Resistant Anemia: Note on Differential Diagnosis of Pernicious Anemia and Familial Acholuric Jaundice. A. H. Douthwaite and R. L. Waterfield.—p. 519.
Splenic Cysts: Case Report. M. Harmer and J. A. Chalmers.—p. 521.
*Significance of Premenstrual Fever in Pulmonary Tuberculosis. R. Grenville-Mathers.—p. 523.
Blindness in an Urban Center in Nigeria. F. E. Stock.—p. 525.

Premenstrual Fever in Pulmonary Tuberculosis.—According to Grenville-Mathers the majority of women have some modification in the temperature chart during the days immediately preceding menstruation. The author investigated this problem in 15 healthy young women and in 50 women with pulmonary tuberculosis. Thirteen of the healthy and 43 of the tuberculous women were found to have premenstrual temperature increases. In patients with pulmonary tuberculosis the increase tends to be more pronounced and of longer duration than in normal subjects. This premenstrual phase gradually diminishes in conjunction with decreasing tuberculous activity. As an indication of activity it can be regarded in the same light as a persistently raised erythrocyte sedimentation rate and may be ignored in deciding increases of exercise. The change is probably brought about through the agency of the thyroid gland and can be abolished by the use of thiouracil.

Glasgow Medical Journal

27:63-92 (March) 1946

Equipment for the Calling of Medicine. C. H. Browning.—p. 63.
Radiologic Investigation of Tumors of Colon. R. K. Harper.—p. 76.
*Henoch-Schönlein Purpura and Acute Nephritis Due to Food Allergy. A. Brown.—p. 84.

Henoch-Schönlein Purpura and Acute Nephritis Due to Food Allergy.—Brown reports that a boy aged 9 suddenly developed the features of Henoch-Schönlein purpura and hematuria. The condition was found to be due to food allergy, and, by dietetic control, tomato was incriminated. A positive skin reaction to tomato pulp was obtained on two occasions. No further attack occurred after the elimination of tomato from the diet, but three months after the last attack red blood cells and casts were still present in the urine.

Lancet, London

1:485-524 (April 6) 1946

Clinical Pathology: Past and Future. A. H. T. Robb-Smith.—p. 485.
Neuronal Damage from Temporary Cardiac Arrest. J. Howkins, C. R. McLaughlin and P. Daniel.—p. 488.
Acute Necrosis of Liver Treated with Protein Hydrolysates. D. J. ap Simon and D. Brown.—p. 492.
Toxicity of Marfanil and V 187 to Cells in Vitro. F. Jacoby.—p. 494.
*Tuberculous Lobar Pneumonia Treated by Pneumoperitoneum and Phrenic Crush. O. L. Wade.—p. 496.
Peptic Esophageal Ulcer: Nonfatal Perforation. Ella Preiskel.—p. 497.
Osteomyelitis Radiographically Resembling Sarcoma. J. F. Brailsford.—p. 498.
Double Exposure Radiograms of Chest. J. Maxwell.—p. 499.
Cerebral Cysticercosis Without Epilepsy. C. Edwards.—p. 500.

Tuberculous Lobar Pneumonia.—Wade describes 2 cases of tuberculous lobar pneumonia. In both the illness was serious and collapse therapy was strongly indicated. In case 1 a pneumoperitoneum and a phrenic crush gave sufficient collapse of the diseased lung for the general condition to improve, so that later it was possible to institute a pneumothorax without the danger of complications. In case 2 a pneumoperitoneum and a phrenic crush immediately collapsed a diseased lower lobe, and this collapse has proved so successful that further measures will probably not be necessary.

Schweizerische medizinische Wochenschrift, Basel

75:1049-1072 (Dec. 1) 1945

Progress in Roentgenographic Presentation and Diagnostics of Rectum. H. H. Weber.—p. 1049.
Increase of Venereal Diseases in Patients of Clinic of Basel During 1944 and 1945. G. Gräflin and M. Maire.—p. 1051.
*Heinz Bodies and Röhl's Marginal Corpuscles in Erythrocytes. R. Jürgens and W. Schürer.—p. 1055.
Enterococcus Pneumonia: Contribution to Problem of Chemotherapy Resistant Pneumonias. H. Lüdin.—p. 1058.
Fatalities from Erroneous Dosage of Nupercaine Hydrochloride. A. Christ.—p. 1061.

Heinz Bodies and Röhl's Marginal Corpuscles in Erythrocytes.—Differentiation of centrally located Heinz bodies and of Röhl's marginal corpuscles in the erythrocytes is important for the testing of sulfonamide preparations in animal experiments. Jürgens and Schürer's in vivo experiments demonstrated that the formation of Heinz bodies in the erythrocytes of dogs, rats and mice was most pronounced on the fourth and fifth days after the administration of the maximum dose of sulfanilamide, sulfapyridine and sulfathiazole.

75:1073-1092 (Dec. 8) 1945. **Partial Index**

Significance and Evaluation of Weltmann Reaction (Heat Coagulation Threshold) and of Takata Reaction in Examination of Blood. F. Wuhrmann.—p. 1073.
*Successful Trendelenburg Operation of Fulminant Pulmonary Embolism. R. Nicole.—p. 1080.
Pleuropulmonary Manifestations of Malignant Lymphogranulomatosis (Hodgkin's Disease). H. Perrier.—p. 1082.
Nonsurgical Treatment of Avulsion of Extensor Tendon of Finger. E. Ledergerber.—p. 1088.
Metastatic Infection of Tuberculous Gravitation Abscess with Bacillus Funduliformis. E. Ruppanner.—p. 1089.

Successful Trendelenburg Operation in Pulmonary Embolism.—Nicole states that the Trendelenburg operation for pulmonary embolism has been successful in only 10 cases. Nicole's patient, a woman aged 43, survived the operation but developed a second pulmonary embolism three weeks after the first. The Trendelenburg operation was successfully carried out, but only after the patient had lost consciousness. She lived seventeen hours after the second operation. Necropsy revealed that death was caused by a bilateral aspiration pneumonia with terminal cardiac insufficiency. The vascular suture was free from leaks and thrombosis. The author thinks that his is probably the first case in which the Trendelenburg operation was performed twice.

Revista Médica de Rosario

36:1-60 (Jan.-Feb.) 1946. **Partial Index**

Study of a Case of Monocytic Leukemia. J. P. Picena.—p. 1.
Chronic Amebiasis. W. L. Lamb and G. R. Royston.—p. 19.
*Causes of Recurrences in Skin in Mammary Cancer. A. Baraldi and J. Benzadon.—p. 31.
*Coagulation, Bleeding and Prothrombin Time in Patients Receiving Digitalis Treatment. R. J. Taltavull, A. Delle Vedove and V. R. Maurelli.—p. 36.

Causes of Skin Recurrences in Mammary Cancer.—Baraldi and Benzadon had no mortality in 119 patients with mammary cancer operated on according to the technic of Halsted-Gosset-Handley and followed up for from six months to eight years. Of those with axillary metastasis 42 per cent survived more than five years and 11 per cent had skin recurrences. Of those with no axillary metastases 74 per cent survived beyond five years and none had skin recurrences. Local relapses of cancer of the breast depend on the type of cancer, on the amount of skin removed, on the surgical technic and on the postoperative treatment. Extirpation of skin should be ample but not excessive, as was stressed by Handley, because if the tumor is very invasive recurrence will follow no matter what procedure is followed. Postoperative irradiation, if given in adequate doses, not only prevents recurrence but also cures local recurrences.

Coagulation, Bleeding and Prothrombin Time in Digitalis Therapy.—Taltavull and his associates studied the modifications in the coagulation, bleeding and prothrombin time produced by therapeutic doses of digitalis in 19 cases of cardiac insufficiency of varying etiology. The digitalis treatment was begun after edema had been counteracted. They found that the coagulation time remained uninfluenced in only 1 of the cases; there were 9 in which it was increased and an equal number in which it was decreased. Bleeding time was unchanged in 3 cases, increased in 7 and reduced in 9. The prothrombin time was uninfluenced in 3, augmented in 5 and diminished in 11 cases.

Acta Medica Scandinavica, Stockholm

123:403-510 (Feb. 20) 1946

Diabetes Mellitus and Pulmonary Tuberculosis. J. E. Poulsen.—p. 403.
Cytologic Diagnosis of Gastritis. J. Tomenius.—p. 417.
*Symptomatology of Amyotonia Congenita (Infantile Spinal Muscular Atrophy). G. Wohlfart.—p. 428.
Is "Digestive Leukocytosis" a Reality? A. Videbaek.—p. 448.
Influence of Vitamin C on effect of Thyrotropic Hormone. U. Borell and H. Holmgren.—p. 472.
Investigation on Pulse Curves in Larger Distal Arteries of Extremities in Several Cases of Pseudoxanthoma Elasticum with Angioid Streaks (Grönblad-Strandbergs Syndrome). E. Guenther.—p. 482.

Symptomatology of Amyotonia Congenita.—Wohlfart observed a farmer family which consisted of the parents and 4 children. The parents were in good health. The family history revealed 2 definite cases of amyotonia congenita in a cousin of the father of the 4 children and in a second cousin of his who died at the age of 6 months. The condition of the 4 children, 1 brother and 3 sisters between the ages of 6 to 12 years with amyotonia congenita, illustrates how the disease pictures of Werdnig-Hoffmann's disease and of Oppenheim's disease merge into each other. General muscle weakness was manifested in 2 of the children soon after birth, while in a third child it became manifest at 6 months of age. Two of the children suffered from pronounced amyotonia congenita, but for several years the symptoms were gradually subsiding so that both children will in all probability reach adult age. The two other children had the same disease in a rudimentary form. The benign course of the disease in all 4 children is unusual; only one similar family has been described in the literature. Three of the 4 children presented atrophy of the optic nerve; 1 had convergent strabismus and 1 divergent strabismus. An additional case of amyotonia congenita of the type of Werdnig-Hoffmann in a girl 2 years 3 months old is reported; this girl also presented atrophy of the optic nerve.

Acta Oto-Laryngologica, Stockholm

23:391-496 (Dec. 31) 1945

*Bronchitis Circumscripta Nonspecifica. T. Leegaard.—p. 391.
Experimental Histologic Studies on Labyrinth: VI. Anaphylaxis. S. H. Mygind, H. C. Andersen and P. Rubinstein.—p. 407.
Local Treatment of Maxillary Sinusitis with Alfasol. H. Rasmussen.—p. 419.
"Demaskator": Instrument for Unmasking of Shammed Unilateral Deafness. H. Key-Åberg.—p. 425.
Diagnosis and Treatment of Air-Filled Brain Abscess. C. A. Hamberger and H. Diamant.—p. 431.
Cryptogenetic Cerebrospinal Rhinorrhea. S. Johnsen.—p. 446.
Complications in Ear, Nose and Throat in Infectious Mononucleosis. E. Berg.—p. 454.
Acoustic Trauma and Function of Inner Ear. L. Rüedi and W. Furrer.—p. 460.
Heterotropic Tumors with Intestinal Mucous Membrane Structure in Nasal Cavity. O. Järvi.—p. 471.
Congenital Cysts of Esophagus. S. Ranström.—p. 486.

Nonspecific Circumscribed Bronchitis.—Leegaard reports 6 cases of nonspecific circumscribed bronchitis in 4 women between the ages of 29 and 41, in a man aged 25 and in a boy aged 7. The most important symptoms were cough, hemoptysis and signs of bronchial stenosis. Circumscribed lesions of the mucous membrane in the larger bronchi with redness, edema and occasionally considerable granulation were demonstrated on bronchoscopy. Atelectasis of one lobe resulted in 2 cases. The syndrome can be frequently observed and is to be considered as the result of acute catarrhal infection of the mucous membrane. In the majority of the cases it subsides spontaneously, but considerable secondary changes may occasionally be produced in the lungs and bronchiectasis may result.

Acta Physiologica Scandinavica, Stockholm

11:1-96 (Jan. 28) 1946. **Partial Index**

Determination of Inulin in Urine and Plasma. P. Kruhøffer.—p. 1.
Significance of Diffusion and Convection for Distribution of Solutes in Interstitial Space. P. Kruhøffer.—p. 37.
*Acute Effects of Cigaret Smoking on Oxygen Consumption, Pulse Rate and Blood Pressure in Working Organisms. A. Juurup and L. Muido.—p. 48.
*Influence of Anoxia on Gastric Hydrochloric Acid Secretion. K. Hartiala and M. Karvonen.—p. 85.

Acute Effects of Cigaret Smoking During Exertion.—Juurup and Muido studied the effects of smoking on oxygen consumption, pulse rate, breathing rate and blood pressure on subjects who were subjected to measurable exertion on a bicycle ergometer. They found that smoking causes a rise in pulse rate in the state of rest as well as during work but that smoking has no effect on oxygen consumption. It may be assumed that smoking does not affect ventilation and the breathing rate. Rise in blood pressure as an effect of smoking is probable. At a certain oxygen consumption the pulse rate is higher under the effect of smoking than in the absence of smoking. The influence of smoking lasts from ten to forty-five minutes, showing individual variations and depending on the amount of tobacco smoked.

Influence of Anoxia on Gastric Secretion.—The aim of the investigations described by Hartiala and Karvonen was to determine whether anoxia influenced the hydrochloric acid secretion in the stomach. Test meals were given to 3 human subjects who were subjected to variations in altitude in the low pressure chamber, both after ammonium chloride administration on the day before and without it. The oxygen pressures in the inspired air was 149, 87 or 69 mm., corresponding to pressures at sea level of 4,000 meters (13,000 feet) and 5,500 meters (17,600 feet). At 69 mm. (17,600 feet) of oxygen pressure the hydrochloric acid secretion was greatly reduced. At 87 mm. of pressure (13,000 feet) this reduction was of lesser degree and less regular. The previous administration of ammonium chloride had no effect on the secretion of hydrochloric acid under various pressures. The authors think that the decrease of the hydrochloric acid secretion during severe oxygen deficiency is a consequence of anoxia and is independent of alkalosis produced by hyperventilation.

Nordisk Medicin, Gothenburg

28:2283-2362 (Nov. 2) 1945. **Partial Index**

Case of Opium Poisoning in Infant. Erling Rustung.—p. 2285.

Hospitalstidende

Joint Research by Danish Medical Society. J. Ipsen.—p. 2287.
Incidence of Complications in Artificial Pneumothorax. E. Holm-Pedersen.—p. 2288.
Differential Diagnosis Between Aortic Aneurysm and Mediastinal Tumor. P. Holm Nielsen.—p. 2294.

Norsk magasin for lægevidenskapen

Tuberculosis in Oslo During War Years. E. Dahl and Julie Backer.—p. 2305.
Puncture Treatment of Pleural Empyema. A. J. A. Arnesen.—p. 2313.
Local Sulfathiazole Treatment of Carriers with Hemolytic Streptococci and Yellow Hemolytic Staphylococci in Mucous Membranes of Nose and Throat. C. Wille.—p. 2319.
*Treatment with Iron and Sedimentation Reaction in Idiopathic Hypochromic Anemia. A. Gjerdsjø.—p. 2323.
Plastic Surgery of Nose According to Gillies. R. Moe.—p. 2329.
Paralysis of M. Rectus Oculi Externus as Only Deficiency Symptom in Poliomyelitis. A. Brodal.—p. 2332.
Ascorbic Acid Values in Healthy Norwegians from 1940 to 1942. J. Hagtvedt.—p. 2335.

Hygiea

Tuberculous Pleural Empyema and Treatment. I. Söderhjelm.—p. 2337.
Case of Neurinoma of Small Intestine Treated Operatively. P. Hedlund.—p. 2343.

Iron Therapy and Sedimentation Reaction in Idiopathic Hypochromic Anemia.—Gjerdsjø concludes that if in this disease the blood sedimentation values are pathologically increased and the hemoglobin deficiency is not reduced by at least 50 per cent in the course of ten days' treatment with reduced iron a complicating disorder is probably present.

Book Notices

Relief and Social Security. By Lewis Meriam. Cloth. Price, $5. Pp. 912. Washington, D. C.: Brookings Institution, 1946.

The Brookings Institution in Washington is generally recognized as one of the most capable institutes in all the world for the study of economics. The institution has just released a comprehensive 900 page book entitled "Relief and Social Security," representing several years of study by Lewis Meriam, long a member of the senior staff of the Brookings Institution. The thesis of this book is "How can the United States develop a universal, comprehensive and coordinated system of social security that will relieve want at a cost which the nation can afford, without seriously interfering with the American way of life?" As a part of the evidence on which the solution is offered, the book presents an analytical description of the existing programs in the United States, the emergency experiments of the depression years and the plans now being developed in Great Britain and New Zealand. An analysis of our present social security programs indicates that they are not universal, comprehensive or coordinated. Thus present limitations exclude people who work on their own account, such as farmers, independent businessmen and professional men engaged in private practice. By the nature of the act thousands of persons who have paid social security taxes will derive no benefits under old age and survivors insurance because they did not remain under it long enough to attain an insured status. They will forfeit their contributions. Other people will forfeit most of their contributions because on their death they will not leave dependents who are eligible under the law. The discussion by Mr. Meriam makes it clear that none of this is really insurance but actually taxation, so that the federal government may give benefits to persons who are not in need and who have not themselves paid the cost of their benefits, whereas systematic provision has not been made to provide residents who are in need with the minimum essentials of living. Many of the conclusions of Mr. Meriam are thought provoking, particularly in the light of proposed extensions and amendments to the Social Security Act. The primary purpose of relief and social security is to relieve need. Hence there must be a definition of need, and public funds should not be given to people if they themselves or any relative normally responsible for them have sufficient resources to support them and their dependents in accordance with a strictly defined standard of health and decency. Mr. Meriam feels that a means test is an essential part of a relief and social security system. This does not mean such a means test as was used under ancient poor laws but a modern means test which recognizes definite standards of need.

Mr. Meriam emphasizes also that the present payroll taxes levied on employers for support of the social security system become part of the labor cost in the production of needed goods and services. Employers therefore attempt to pass them along to the consumer. The result is that an upward spiral of wages and prices works against the beneficiaries of the social security system and against all others dependent on a fixed money income. Another objection to payroll taxes lies in the fact that they have no relation to the profits of the employers or their capacity to pay. Hence Mr. Meriam feels that the only proper technic for financing relief and social security is a universal tax levied on all persons with a net income, the proceeds being earmarked for the social security fund, from which all benefits would be paid.

Another point emphasized by Mr. Meriam also deserves special consideration in relation to the proper provision of medical care. He says that the variations between different sections of the United States with respect to social and economic conditions and especially with respect to costs and levels of living are too great to permit the satisfactory use of uniform money levels of benefits. Because of the special problems of the South, Mr. Meriam feels that public funds could be more advantageously spent for education, public health and other activities that would increase productive capacity and help in raising the level of living of working people and their dependents than in paying money benefits to individuals covered by a security plan.

The final conclusion of Mr. Meriam reads:

A social security system should be based on concepts of welfare. It should not be directly tied into wages which are not only already highly complicated but apply only to a single, though large, section of the economy. The system should establish a floor below which no one would be allowed to sink without being eligible for prompt and certain public assistance if he desires it. It should leave the individual free to raise himself and those dependent on him as much above that floor as his ability will permit without being taxed for benefits for persons who may be materially better off than he is.

Modern Anesthetic Practice. Edited by The Late Sir Humphry Rolleston, Bt., G.C.V.O., M.D., and Alan Moncrieff, M.D., F.R.C.P. The Practitioner Handbooks. Second edition. Cloth. Price, 12s. 6d. Pp. 150, with 7 illustrations. London: Published on behalf of the Practitioner by Eyre and Spottiswoode, Ltd., 1946.

One of the eleven Practitioner Handbooks series edited by the same persons, this edition has been thoroughly revised and brought up to date by the distinguished British anesthetists who were authors of the first edition. That more than a dozen well known British specialists in anesthesia were able to find time to perform such a labor of love as this revision has entailed in the months when some of them were still in military service, one an ex-prisoner of war, and when all were living in the uncertainty of the postwar months is a testimonial to British stability of character. As in the other Practitioner handbooks, the aim here has been to offer latest reliable information to the general practitioner. Simple technics requiring minimum equipment are emphasized. Dangers are stressed in concise language. One such gem is on page 16 by C. Langton Hewer: "The golden rule in local analgesia is to use the smallest quantity of the weakest solution of the least toxic drug which will produce the required effect." The importance of oxygen and artificial respiration in the treatment of toxicity caused by local agents is however insufficiently stressed. General information dealing with the various anesthetic drugs and their use is briefly and clearly stated. The book should be useful to the physician who is occasionally required to act as anesthetist. Although British methods differ somewhat from current practice in this country, a perusal of this little book will prove both interesting and profitable to American anesthesiologists. Occasional examples of careless proofreading can hardly be criticized in view of the difficulties of publication in postwar England. Examples are the spelling of pentothal as "pentotal" on pages 46 and 47, and of Lundy as "Lunday" on page 86. Documentation with references is noticeably lacking but understandable for similar reasons.

Voies et centres nerveux: Introduction anatomo-physiologique à la neurologie. Par J. Delmas, professeur à la Faculté de médecine de Montpellier, et A. Delmas. Paper. Price, 270 francs. Pp. 164, with 92 illustrations. Paris: Masson et Cie, 1946.

This is a brief presentation of neuroanatomy which the authors propose to limit only to facts which are of physiopathologic significance. In the main the book consists of a brief presentation of standard neuroanatomic facts illustrated by simple but clear line drawings. The book, however, does not represent up to date knowledge and thought in the fields of neuroanatomy and physiology. The position of the spinal pathways subserving the sensations of pain and temperature illustrated in figure 25 is not in agreement with experimental studies or neurosurgical experience. The rubrospinal tract, although of considerable size and importance in dogs and cats, is now known to be of little significance in man. The overemphasis on the rubrospinal tract seen in the discussion of the extrapyramidal pathways on page 35 is carried over into the illustration of the cerebellar connections on page 78 and has resulted on page 126 in a complete failure to present the modern concept of the corticocerebellothalmocortical circuits. The pyramidal tract is presented as arising solely from the precentral gyrus; the now known complexity of this pathway is completely ignored. The thorough studies of the past decade of the relationship of the various thalamic nuclei to the cerebral cortex are not discussed. The book is out of date and cannot be compared to the several excellent textbooks on neuroanatomy which have appeared in recent years.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

CHOLINE AND VITAMIN THERAPY FOR CIRRHOSIS OF LIVER

To the Editor:—**Has the therapeutic value of choline or choline plus vitamins A,B,C and D been sufficiently well established to indicate its use in the treatment of chronic hepatic insufficiency and particularly in cirrhosis of the liver?**

M.D., Missouri.

ANSWER.—The use of choline, cystine, methionine and vitamin supplements in chronic hepatic disease is based on two conceptions: first, that deficiencies in the intake of these substances will cause structural changes in the liver and render the organ more vulnerable to hepatotoxic substances; and, second, that part of the clinical picture of hepatic insufficiency may be due to specific vitamin deficiencies secondary to failure of certain metabolic functions of the liver.

Numerous investigators have shown the clinical value of high carbohydrate, high protein diets with vitamin supplements in cases of cirrhosis. It is not entirely clear that the addition of choline to this program makes it a more efficient therapeutic instrument in late cirrhosis, but recent observations seem to indicate that choline, choline plus cystine or methionine may be particularly effective in the treatment of the early stages of cirrhosis when the liver is large, presumably fatty and not greatly involved by periportal fibrosis. Because of its known lipotropic activity and availability, choline may be particularly recommended in such cases. For a more detailed discussion of this subject the reader is referred to the paper by Beams in THE JOURNAL, Jan. 26, 1946, page 194.

Certain components of the vitamin B complex, notably nicotinic acid and thiamine, may be essential in the treatment of late hepatic insufficiency since, as Jolliffe has shown, many patients who have cirrhosis present themselves with Wernicke's or Korsakoff's syndrome and nicotinic acid deficiency encephalopathies. These may respond to intensive therapy with appropriate fractions of the B complex.

INCREASED LIBIDO AFTER MENOPAUSE

To the Editor:—**A woman aged 59 has sex dreams with orgasm about once a week. At other times while awake she is seized with overpowering sexual desire and masturbates. Both these experiences, awake and asleep, leave her miserable, nervous and unhappy. Her husband is now impotent. Before the menopause she states that she was not oversexed. The clitoris is four or five times as large as usual. Another woman past 70 has been troubled with the same kind of dreams, with orgasm, which leaves her "a wreck" for two or three days.**

M.D., Missouri.

ANSWER.—Fortunately the exaggeration or reawakening of the libido long after the menopause is rare. Treatment is difficult. There is no specific remedy to decrease sex desire. Theoretically androgen might be considered a counteracting agent, but actually it stimulates the sex urge in women. Persons afflicted with the condition described in the query must exercise a great deal of self control during the daytime to avoid masturbation. They should be told that masturbation is not harmful physically. Fear and worry aggravate the psychic effect. Sedatives, such as phenobarbital, may be given in small doses. Occasionally other soporific drugs may be prescribed. Reading interesting books without romance, such as books on travel or history, may help. For some women cold baths and for others warm baths just before retiring are useful to insure restful sleep. If such simple methods do not help, such a patient should consult a psychiatrist.

TREATMENT OF RAPE CASES

To the Editor:—**I should like some information concerning the treatment of rape cases and suspected rape cases. At the present time, we are instilling 10 per cent mercurochrome into the vagina and applying 10 per cent calomel ointment to the external genitalia after taking smears from the cervix and urethra.**

M.D., Michigan.

ANSWER.—It is doubtful that mercurochrome is of value. Calomel ointment is effective therapy. The important thing in rape or suspected rape is careful follow-up of smears from the cervix and urethra. Also Wassermann or Kahn tests should be repeated.

EPILEPTIFORM SEIZURES IN SYPHILIS

To the Editor:—**A man aged 34 of Italian descent was seen because of generalized epileptiform seizures. His first attack was in 1941 when the patient was employed as a truckdriver. While making a delivery he stopped the truck and then "fell out". He was examined shortly afterward by a physician. Subsequently it was found that the spinal fluid Wassermann reaction was positive. The blood Wassermann reaction was negative and has remained consistently negative. The patient was given alternating courses of bismuth compounds and arsenicals for a period of two years. Following this therapy he received two series of fever treatments at an approved institution for this type of treatment. During this time he was free from the attacks, described as generalized epileptiform in nature. In May 1945 he received 5,000,000 units of penicillin in 20,000 unit doses every three hours. Following this the spinal fluid examination was negative. The patient was advised to report for reexamination in six months. One week prior to the time for reexamination the patient had another epileptiform seizure. Three days after this seizure he was examined again. Spinal puncture was not performed, since it was felt that the recurrence of attack was evidence that the infection was still present. Accordingly he was given tryparsamide 2 Gm. weekly and potassium iodide 45 grains (3 Gm.) daily. When the patient reported for the sixth injection of tryparsamide he reported a recurrence of the epileptiform attack the preceding night. There was evidence of his having recently bitten his tongue. It was concluded that this was a typical epileptic seizure. The patient was advised to continue the tryparsamide injections until a series of ten injections was completed, following which a spinal puncture would be performed. At this time also phenobarbital 1½ grains (0.1 Gm.) daily was prescribed. Following this the patient had no attacks for the next two weeks. Is it possible that this patient has an old healed lesion which acts as an exciter for epileptic attacks in the same way as a traumatic lesion? What future treatment can be suggested?**

John T. Carter, M.D., Cordova, Tenn.

ANSWER.—There are two types of epileptiform seizures which occur in adults with acquired syphilis. The first of these consists either of grand or petit mal attacks associated with dementia paralytica. The second, so-called syphilitic epilepsy, is not due to or associated with dementia paralytica, and may occur in persons who do or do not show either clinical or laboratory evidence of neurosyphilis. The prognosis for relief of convulsive seizures differs in the two sets of circumstances. Convulsions in paretic patients are much more likely to be relieved by fever therapy than is so-called syphilitic epilepsy. Even in treated paretic patients however, convulsive seizures, either grand or petit mal, more often the latter, may persist after treatment even though the patient has otherwise attained a complete remission and the disease process has apparently been arrested.

The question as to whether this man needs any further antisyphilitic treatment depends largely at the moment not on the fact that he continues to have convulsions but instead on other neuropsychiatric evidences of possible progression of his infection and on the laboratory examination of the spinal fluid at the present time. If further treatment is desirable on either of these bases, fever treatment with induced malaria should now be employed. Neither tryparsamide nor potassium iodide is likely to be in the least effective.

Whether or not further antisyphilitic treatment is given, anticonvulsant drugs, e. g. phenobarbital with or without the addition of diphenylhydantoin sodium, should certainly be employed. Convulsions occurring in syphilis, whether due to dementia paralytica or otherwise, are as readily controlled by anticonvulsant drugs as is idiopathic epilepsy.

The convulsions may continue unless suppressed by appropriate anticonvulsant medication, because, as the inquirer suggests, the patient may have an old healed lesion which acts as an exciter for epileptic attacks.

TREATMENT OF FACIAL ANGIOMA IN INFANTS

To the Editor:—**What is the proper treatment for an angioma on the face of a girl aged 6 months? The lesion did not appear until about seven or eight days after birth. It now consists of a superficial slightly raised portion over the malar region and a deep portion in the temporal region of the same side extending to the outer aspect of the upper and lower eyelids, causing a ptosis. It has shown continuous progression since it was first observed.**

M.D., New York.

ANSWER.—The treatment of angiomas in the newborn is not standardized and probably never will be because each child presents a problem which requires individualization. At the present time there are two schools of thought: (1) those who believe that such angiomas should not be treated because some of them will involute spontaneously and (2) those who advise therapy of one type or another at the earliest date. Not all angiomas disappear spontaneously; 25 per cent would be a fair estimate of the number that grow smaller or occasionally disappear.

It would seem advisable, therefore, in a girl aged 6 months to institute treatment as soon as possible in order to prevent further disfigurement, such as ptosis or hypertrophies. If the

lesion is mainly angiomatous with only a small amount of lymph vessels involvement, radium will often produce excellent results. The resultant scar and small blood vessels may be treated later by plastic surgery or injection of the vessels. The use of solidified carbon dioxide or the injection treatment will do as well in the hands of an expert, with plastic surgery to complete the procedure if necessary when the child is old enough to cooperate.

The argument against waiting for spontaneous remission to develop is that when it does not occur the parents regret not having done something when the child was young. There is no way of assisting the angioma to involute or to forecast which ones will do so; and as the incidence of such occurrences is low, it seems advisable to do as conservatively as possible the things that are known to be effective.

BLOOD PICTURE IN UNEXPLAINED GASTROINTESTINAL HEMORRHAGE

***To the Editor*—A patient age 52 years, has had severe gastrointestinal hemorrhages requiring repeated transfusions. The blood count after the first hemorrhage revealed erythrocytes 3,800,000, leukocytes 11,000, hemoglobin 70 per cent a differential of polymorphonuclears 62 per cent, lymphocytes 35 per cent, eosinophils 2 per cent and basophils 1 per cent. X-ray studies of the gastrointestinal tract revealed no organic lesion in the stomach or intestine. The gallbladder was normal. There was hydrochloric acid in the gastric contents. After a recent severe hemorrhage the blood count revealed erythrocytes 3,800,000, hemoglobin 75 per cent with a differential of polymorphonuclears 60 per cent lymphocytes 36 per cent, eosinophils 3 per cent and basophils 1 per cent, coagulation time 15 minutes (10 minutes normal), bleeding time 6 minutes (2-3 minutes normal), prothrombin time 16 minutes. (Howell's method normal 10 minutes), platelet count 140,000. Please discuss this blood picture and suggest treatment before exploratory surgery.**

M.D., New Jersey.

ANSWER.—The erythrocyte count, hemoglobin value, leukocyte count and differential count are not an aid in determining the cause of bleeding in this patient. The coagulaton time, bleeding time and platelet count are all slightly abnormal but probably not sufficiently so to explain the bleeding on the basis of a hemorrhagic tendency. The prothrombin time of Howell is not an accurate index of the prothrombin in the blood. The test should be repeated using Quick's method.

A common cause of gastrointestinal hemorrhage which might be accompanied by the mild abnormalities of the coagulating mechanism noted is cirrhosis of the liver with esophageal varices. Determination of the sulfobromophthalein excretion, serum proteins and, if necessary, the cephalin-cholesterol flocculation and hippuric acid excretion would help to exclude this possibility. A bleeding peptic ulcer cannot be ruled out on the basis of a negative x-ray.

As the cause of bleeding has not been determined, no specific therapy can be suggested. Even if the bleeding was related to a hemorrhagic condition, blood transfusions would be the only treatment likely to help. If a decrease in prothrombin is found by the Quick method and this is secondary to liver disease, vitamin K would not be of benefit.

SKIN IRRITATION BY WETTING AGENTS

***To the Editor*:—Please give information on the irritating or allergenic properties of "wetting agents." Have there been reports of untoward reactions from daily short contact with any of them? If so, which are the least irritating?**

Captain, M. C., A. U. S.

ANSWER.—Wetting agents are not serious skin damaging substances, because only high dilutions are ordinarily employed. Of course this is not true for workers manufacturing wetting agents. Numerous wetting agents have induced primary skin irritation, and sensitization is common. Ordinary soaps are surface active agents and, with few exceptions, all cleansing soaps have occasionally caused skin irritation or sensitization. Hence it would be difficult to classify the soaps into irritating and nonirritating groups. Equally difficult would be the classification of the large group of commercial wetting agents. However, in general, skin injury is more likely to be caused by wetting agents containing amine groups, sulfur (especially free sulfur), cresol, phenol, pine oil, potassium soaps, high p_H alkalis or chlorinated solvents. Although there are few data on toxicity, more information on wetting agents may be found in the following references:

Dee Snell, F.: Surface Active Agents, *Indust. & Engin. Chem.* **35**: 107, 1943.
Morris, G. E.: The Chemistry of the Wetting Agents, J. Indust. Hyg. & Toxicol. **26**: 175, 1944.
Van Antwerpen, F. J.: Surface Active Agents, *Indust. & Engin. Chem.* **33**: 16, 1941.
Bartell, F. E.: Wetting Agents, *ibid.* **33**: 737, 1941.
Lane, C. G., and Blank, I. H.: Cutaneous Detergents, THE JOURNAL, March 7, 1942, p. 804.

CHRONIC RECURRENT INFECTIONS OF THE NAILS

***To the Editor*:—A woman for the past two years has had recurrent episodes of swelling and tenderness of the cuticle of the fingers, resembling paronychial infection with resulting shriveling and blackening of the nails, especially on the sides. Apparently this is a common condition and peculiar to women who do washing and scrubbing. What curative treatment is there? Would local penicillin ointment be of value?**

Earl W. Ellis, M.D., Elgin, Minn.

ANSWER.—Changes in the nails are frequently difficult to diagnose. Excessive exposure to water, especially if alkali treated as with strong soaps and powders, may cause changes in the nails, such as loosening from their beds. In this process the soft tissues surrounding the nails may also be involved in a chronic inflammation. The nail folds may develop a chronic pyogenic infection, and squeezing will sometimes evacuate a bead of pus from this site. Infection of the nail fold and of the nail and nail bed may be caused by yeast organisms instead of pyogenic organisms. Certain occupations, such as the canning of fruits, tend to induce these yeast or moniliasis infections. Jewish women more commonly develop them. One should make sure that there is no glycosuria or excess of blood sugar. Fungi other than yeasts may be producing the nail changes by their presence. The affected part of the nail should be scraped and the shavings or bits of adjacent scale from the surrounding skin can be immersed in sodium or potassium hydroxide solution under a cover glass. A search for the presence of fungi should be made under the microscope; if facilities are available, cultures should be made on suitable mediums. Psoriasis may produce multiple changes in the nails. One of these is a darkening in spots, which is rather sharply outlined. The most effective therapy for psoriasis of the nail sites is proper use of x-rays. Trauma to the nail bed and surrounding tissue occurs in certain types of work which call for traction by the nails in a manner to pull them away from their beds.

SEMINOMA OF TESTIS

***To the Editor*:—A man age 55 gives a history of the removal of a tumor of a testis in 1939. The tumor was identified as a seminoma. The patient received post-operative x-ray treatment which was complicated by a burn. At the present time the patient shows no evidence of recurrence. Although he is underweight, there has been no recent loss of weight. I would appreciate any information concerning the malignancy of this tumor and the site of possible metastases and the indication or contraindication for treatment with testosterone.**

M.D., Texas.

ANSWER.—Seminomas are among the more malignant types of carcinomas, although there have been some prolonged survivals following excision with or without radiation therapy. Of course the most favorable cases are those in which metastases have not yet developed. Seminomas metastasize first to the regional lymph nodes, i. e. superficial and deep inguinal nodes, nodes along the external and common iliac vessels, nodes along the spermatic vessels and nodes in the retroperitoneal region. Pulmonary metastases are usually the first detectable distant metastases. If survival occurs for an appreciable period during the terminal stages, metastases may be found at necropsy in practically all organs and tissues, including the skeleton. However, foci of macroscopically visible bone destruction do not usually occur.

There is no indication nor contraindication to the use of testosterone in the usual doses in the treatment of seminomas. With regard to the patient referred to in the query there is no contraindication to the administration of small doses of testosterone to restore sexual potency if, in the course of treatment, there has been atrophy of the remaining testis from irradiation. The fact that the patient is now living and well seven years after removal of the seminoma is strong evidence that the growth has been completely eradicated.

HALITOSIS FROM DILANTIN

***To the Editor*:—Can you please tell me whether or not dilantin will cause halitosis?**

M.D., Massachusetts.

ANSWER.—The use of dilantin (diphenylhydantoin sodium) may cause halitosis in two ways: First, it often causes gingival hypertrophy. This problem can be met only by extremely painstaking dental care and massage of the gums with toothbrush and fingers twice a day for five minutes at a time. If the gums and teeth can be kept in good condition, there is no reason why halitosis should arise from the mouth.

Second, dilantin occasionally causes disturbance of digestion with eructation and formation of gas. This difficulty can usually be overcome by the use of neutral dilantin in oil in equivalent doses instead of sodium dilantin.